XR-C6093SP

SERVICE MANUAL

East European Model

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol ◻◻ are trademarks of Dolby Laboratories Licensing Corporation.

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	MG-25E-136

SPECIFICATIONS

Магнитофон

Система воспроизведения: 4 дорожки, 2 канала стерео
Детонация 0,08 % (эффективная)
Полоса воспроизводимых частот 30 – 20.000 Гц
Отношение сигнал/шум

Тип ленты	С системой Dolby B	Без системы Dolby
TYPE II, IV	67 дБ	61 дБ
TYPE I	64 дБ	58 дБ

Радиоприемник

FM*

Диапазон настройки 65,0 – 74,0 МГц (шаг 30 кГц) 87,5 – 108,0 МГц (шаг 50 кГц)
Подключение антенны Соединитель для внешней антенны
Промежуточная частота 10,7 МГц
Эффективная чувствительность 8 дБф
Избирательность 75 дБ при 400 кГц
Отношение сигнал/шум 65 дБ (стерео) 68 дБ (моно)
Коэффициент гармоник при 1 кГц 0,5 % (стерео) 0,3 % (моно)
Разделение 35 дБ при 1 кГц
Полоса воспроизводимых частот 30 – 15.000 Гц
Коэффициент улавливания 2 дБ

** Величины параметров измерены в диапазоне 87,5 - 108,0 МГц*

MW/LW

Диапазон настройки MW: 531 – 1.602 кГц LW: 153 – 281 кГц
Подключение антенны Соединитель для внешней антенны
Промежуточная частота 10,71 МГц /450кГц
Избирательность MW: 30 мкВ LW: 50 мкВ

Усилитель

Выходы Разъемы для подключения громкоговорителей (с фиксаторами)
Сопротивление громкоговорителей 4 – 8 Ом
Максимальная выходная мощность 40 Вт × 4 (при сопротивлении 4 Ом)

Общие данные

Выходы Провод управления усилителем мощности/ Провод управления самовыдвигающейся антенной/Сигнальный провод телефонной паузы Линейные выходы (2)
Регуляторы тембра Низкие ±8 дБ при 100 Гц Высокие ±8 дБ при 10 кГц
Питание От автомобильного аккумулятора с напряжением 12 В постоянного тока (масса отрицательная)
Габариты Приблизительно 188 × 58 × 183 мм (д/в/ш)
Монтажные габариты Приблизительно 182 × 53 × 164 мм (д/в/ш)
Масса Около 1,6 кг
Комплектация Набор деталей для монтажа и подключения (1) Вращающийся дистанционный переключатель RM-X4S

Конструкция и технические характеристики могут быть изменены без оповещения.

FM/MW/LW CASSETTE CAR STEREO

MICROFILM

SONY®

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Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the manufacturer.
Discard used batteries according to the manufacturer's instructions.

ADVARSEL!

Lithiumbatteri-Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri
af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

ADVARSEL

Eksplosjonsfare ved feilaktig skifte av batteri.
Benytt samme batteritype eller en tilsvarende type
anbefalt av apparatfabrikanten.
Brukte batterier kasseres i henhold til fabrikantens
instruksjoner.

VARNING

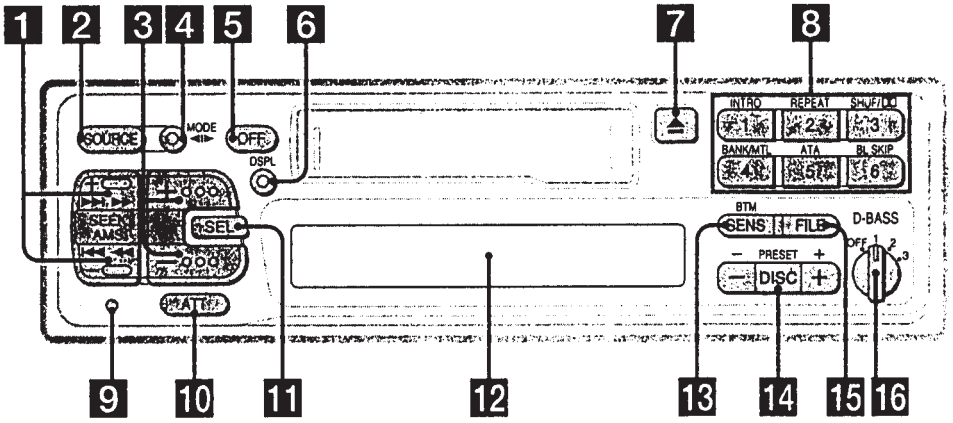
Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en likvärdig typ som
rekommenderas av apparattillverkaren.
Kassera använt batteri enligt gällande föreskrifter.

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.
Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

This section is extracted from instruction manual.

Расположение органов управления



Подробные пояснения см. на указанных страницах

1 **Кнопка SEEK/AMS 4, 5, 7, 12**

2 **Кнопка SOURCE (TAPE/TUNER/MD/CD) 4, 6, 12, 15**

3 **Кнопка ⊕ ⊖ (громкость/низкие частоты/высокие частоты/баланс правых и левых громкоговорителей/баланс передних и задних громкоговорителей) 8, 10, 14, 15**

4 **Кнопка MODE (◄I►)**
При приеме радиопередач:
Выбор диапазона (BAND) 6

При воспроизведении магнитных записей:
Смена направления движения ленты 4

При воспроизведении компакт/MD-дисков:
Выбор проигрывателя компакт/MD-дисков 12

5 **Кнопка OFF 4**

6 **Кнопка DSPL (переключение режима работы дисплея) 5, 8, 12, 14**

7 **Кнопка ⏏ (извлечение кассеты) 4**

8 **При приеме радиопередач:**
Кнопки с номерами программных позиций 7

При воспроизведении магнитных записей/MD/компакт-дисков:
① Кнопка INTRO 5, 13
② Кнопка REPEAT 5, 13
③ Кнопка SHUF DD (перетасованное воспроизведение/система шумоподавления Dolby B) 5, 13
④ Кнопка BANK/MTL (отбор дорожек/лента металл) 5
⑤ Кнопка ATA (автоматическое включение радио) 5
⑥ Кнопка BL SKIP (пропуск пауз) 6

9 **Кнопка перенастройки 4**
Нажимайте эту кнопку перед тем, как впервые начать пользоваться магнитолой, после замены аккумулятора в автомобиле, а также в случае, если нарушилось функционирование кнопок управления аппаратом.

10 **Кнопка ATT 10**

11 **Кнопка SEL (выбор режима управления) 8, 10, 11, 14, 15**

12 **Окно дисплея**

13 **Кнопка SENS/BTM (регулировка чувствительности/запоминание оптимальной настройки) 6, 7**

14 **Кнопка PRESET/DISC**
При приеме радиопередач:
Включение радиостанций, хранящихся в памяти приемника 7

При воспроизведении компакт/MD-дисков:
Выбор диска 12

15 **Кнопка FILE 8, 14, 15**

16 **Регулятор D-BASS 11**

RF Дополнительная информация

Üzembehelyezés

Biztonsági előírások

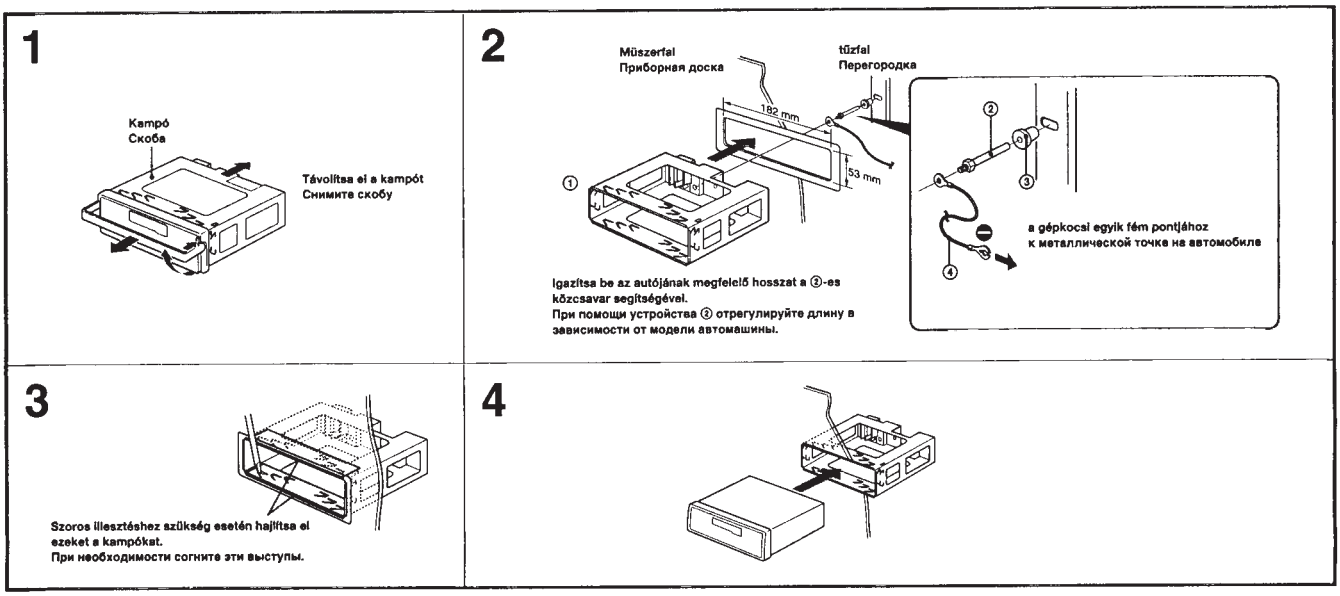
- Kérjük gondosan válassza ki a készülék helyét, úgy, hogy az ne akadályozza a vezetőt vezetés közben.
- Kérjük, olyan helyen helyezze el a készüléket, ahol nincs kitéve magas hőmérséklet - közvetlen napfény vagy a fűtőegységből kiáramló forró levegő - vagy por ill. erős rázkódás hatásának.
- A biztonságos üzembehelyezés érdekében kérjük, hogy csak a készülékkel szállított szerelőkészletet használja.

A beszerelési szög beállítása

A készüléket max. 20°-os döntéssel szerelje be.

Szerelési példa

A készülék beszerelése a műszerfalba



Tudnivaló a csatlakoztatásról

Ha generátor zajt hall (a motor fordulatszámának növelése közben fellépő sivító hang), földelje le az ① tartókeretet - csatlakoztassa a mellékelt ④ alváz földelővezetéket a gépkocsi egyik fém pontjához. A földelővezetéket a 2. lépésben leírtak szerint a ② elem segítségével rögzítse a tartókerethez.

Установка

Меры предосторожности

- Выбирайте место установки таким образом, чтобы прибор не препятствовал водителю во время управления автомобилем.
- Предотвращайте установку прибора там, где он может быть подвержен высоким температурам, например, от прямого солнечного света или горячего воздуха из печки, или там, где возможны воздействия пыли, влаги или сильной вибрации.
- Для безопасной установки используйте только входящее в комплект монтажное оборудование.

Выбор угла монтажа

Угол монтажа выберите меньшим, чем 20°.

Пример монтажа

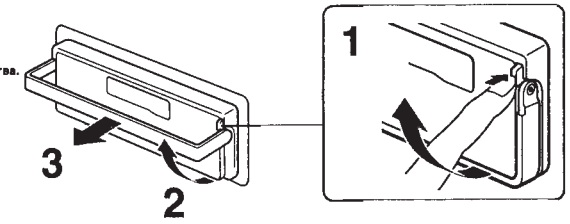
Установка в приборной доске

Примечание по подключению

Если генератор издает шум (воющий звук при наборе скорости), заземлите скобу ①, соединив ее металлической точкой на автомобиле с помощью входящего в комплект заземляющего провода ④. Соедините заземляющий провод со скобой с помощью части 2 как показано в шаге ②.

A készülék kivétele

A készülék kivételével megelőzheti annak ellopását.
Это предохранит Вашу стереосистему от воровства.



Figyelem
Kérjük legyen óvatos a készülék kivételekor. A készülék ugyanis beépített erősítővel rendelkezik, s ezért hátoldala felhevül a használat közben.

Извлечение прибора

Предупреждение
Будьте осторожны при извлечении прибора. Сразу после эксплуатации задняя панель прибора очень горячая, поскольку данный прибор снабжен встроенным усилителем мощности.

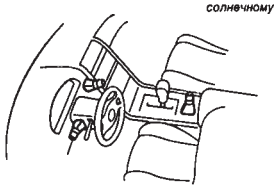
Forgó vezérlő üzembehelyezése

Tudnivalók

- *A forgó vezérlő helyét gondosan válassza ki, úgy, hogy a beszerelt forgó vezérlő ne akadályozza a vezetőt a vezetésben.*
- *Semmiképp ne szerelje be a forgó vezérlőt olyan helyre, ahol az veszélyeztetheti az első ülésen helyet foglaló utasokat.*
- *Forgó vezérlő beszerelésekor ügyeljen arra, hogy ne károsítsa a szerelési felület másik oldalán futó vezetékeket.*
- *Ne szerelje a forgó vezérlőt magas hőmérséklet - közvetlen napfény vagy a fűtőegységből kiáramló forró levegő - hatásának kitett helyre.*

Javasolt beszerelési hely

Пример монтажа



вращающегося дистанционного переключателя

Примечания

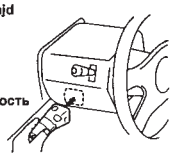
- *Место установки выбирайте таким образом, чтобы вращающийся дистанционный переключатель не мешал управлению автомобилем.*
- *Не устанавливайте вращающийся дистанционный переключатель в таком месте, где он мог бы представлять какую-либо опасность для пассажира на переднем сидении.*
- *При установке вращающегося дистанционного переключателя убедитесь, что Вы не повреждаете электрических кабелей и т.д. на обратной стороне поверхности монтажа.*
- *Не устанавливайте вращающийся дистанционный переключатель там, где он может быть подвержен высоким температурам, например, прямому солнечному свету или горячему воздуху из печки.*

1 **Válassza ki a forgó vezérlő beszerelésének pontos helyét, majd tisztítsa meg a szerelési felületet.**

A por-, ill. zsírfoltok csökkentik a kétoldali ragasztószalag tapadóképességét.

Выберите точное место расположения вращающегося дистанционного переключателя, затем очистите поверхность монтажа.

Пыль или жирные пятна ухудшают клеющую способность двухсторонней клейкой ленты.

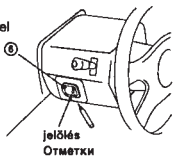


2 **Jelölje ki a tartozékként kapott csavar helyét.**

A csavar helyét a szerelőkészletben található ⑧ elem segítségével jelölje meg.

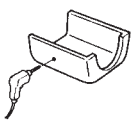
Отметьте позицию для входящего в комплект винта.

Для маркировки используйте отверстия для винтов на монтируемой части ⑧.



3 **Távolítsa el a kormányoszlop borítását és fúrjon a kijelölt helyre egy 2 mm átmérőjű lyukat.**

Снимите крышку рулевой колонки и просверлите в отмеченном месте отверстие диаметром 2 мм.



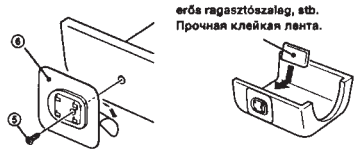
4 **Melegítse fel a szerelési felületet és a ⑥ szerelőelemen található kétoldali ragasztószalagot 20-30°C-ra, ragassza rá a szerelőelemet a szerelési felületre egyenletes nyomás kifejtésével, majd rögzítse a tartozékként kapott - ⑤-val jelölt - csavar segítségével.**

Ragasszon a szerelési felület hátoldalára egy erős ragasztószalagot, hogy megóvja a kormányoszlop belsejében futó elektromos vezetékeket a kiálló csavarvégek által okozott esetleges károsodásoktól.

Нагрейте поверхность монтажа и двухстороннюю клейкую ленту на монтируемой части ⑥ до температуры от 20°C до 30°C и укрепите монтируемую часть на поверхности монтажа, равномерно прижимая ее. Затем прикрутите ее входящим в комплект винтом ⑤.

Прикрепите отрезок прочной клейкой ленты или аналогичного материала. с противоположной стороны поверхности монтажа для того, чтобы прикрыть выступающие концы винтов и не дать им повредить электрокабели в рулевой колонке.

Szükség esetén vágja méretre a ⑥ szerelőelemet.
При необходимости монтируемую часть ⑥ можно обрезать.



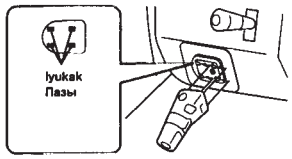
erős ragasztószalag, stb.
Прочная клейкая лента.

5 **Helyezze vissza a kormányoszlop borítását, majd rögzítse a forgó vezérlőt a szerelőelemen. Ehhez igazítsa a forgó vezérlő alján található négy lyukat a szerelőelemen található négy kampóhoz, majd pattintsa rá a forgó vezérlőt a szerelőelemre az ábrán feltüntetett módon.**

Tudnivaló
Ha a kormányoszlopon rögzíti a forgó vezérlőt, úgy figyeljen arra, hogy a csavarok kiálló végei ne akadályozhassák a kormánytengely mozgását, a kapcsolók működését és ne károsíthassák a kormánytörzs belsejében futó elektromos vezetékeket.

После установки крышки рулевой колонки закрепите вращающийся дистанционный переключатель на монтируемой части, располагая пазы на нижней части дистанционного переключателя управления в соответствии с расположением четырех крючков на монтируемой части и насаживая дистанционный переключатель на них как показано на рисунке.

Примечание
Если Вы монтируете вращающийся дистанционный переключатель на рулевой колонке, следите за тем, чтобы выступающие концы винтов на внутренней поверхности рулевой колонки ни в коей мере не препятствовали движению рулевого вала, функционированию переключателей и не задевали электрокабели внутри рулевой колонки.



Csatlakozások

Figyelem

- Ez a készülék csak 12 V-os negatív földelésű, egyenáramú akkumulátorról üzemeltethető.
- Egy esetleges rövidzárlat elkerülése érdekében vegye le az autó akkumulátorának csatlakozóját a készülék bekötése előtt.
- A **sárga és a piros** színű tápvezetéket csak az összes többi vezeték bekötése után csatlakoztassa.
- A piros vezetéket ahhoz a +12V-os csatlakozási ponthoz csatlakoztassa, mely áramot kap, ha az indítókulcs félig van elfordítva.
- **Az összes földelővezetéket közös földelőponthoz csatlakoztassa.**
- A sárga huzalt a gépjárművön olyan szabad áramkörre kösse be, melynek névleges terhelhetősége magasabb, mint amire a készülék biztosítva van. Ha ezt az egységet más sztereo készülékkel köti sorba, akkor annak az áramkörnek a terhelhetősége, melyre a készülékek rá vannak kötve, magasabb kell hogy legyen, mint az egyes készülékek biztosíték-áramainak összege. Ha a jármű nem rendelkezik olyan áramkörrel, melynek terhelhetősége eléri az egység biztosíték-áramát, akkor kösse az egységet közvetlenül az akkumulátorra. Ha nincs olyan szabad áramkör a gépjárművön, mely alkalmas lenne a készülék bekötésére, akkor a készüléket olyan áramkörre kösse be, mely olymódon rendelkezik magasabb terhelhetőséggel, mint amire a készülék biztosítva van, hogy ha a készülék kioldja a biztosítékot, más áramkörök ezzel nem záródnak le.

Újraállító gomb

Ha befejezte készüléke beszerelését és csatlakoztatását, feltétlenül nyomja meg a Újraállító gombot egy golyóstollal, vagy más hasonló eszközzel.

Соединения

Предостережение

- Данный прибор сконструирован только для эксплуатации на автомобилях с напряжением бортовой сети 12 В постоянного тока и отрицательной массой.
- Перед подключением отсоедините заземляющую клемму автомобильного аккумулятора для предотвращения короткого замыкания.
- **Желтый и красный** сетевые провода подсоединяйте только после того, как все остальные провода подсоединены.
- Красный сетевой провод подключайте к положительной клемме 12 В, которая находится под напряжением, когда ключ зажигания в промежуточной позиции.
- **Все заземляющие провода соедините с одной и той же точкой на массе.**
- Соедините желтый провод со свободным контуром на автомобиле, имеющим большую мощность, чем плавкий предохранитель прибора. Если Вы подключаете этот прибор вместе с другими стереокомпонентами, контур автомобильной сети, к которому они подключены, должен иметь большую мощность, чем сумма мощностей плавких предохранителей отдельных компонентов. Если ни один из контуров автомобиля не имеет мощности плавкого предохранителя прибора, подключите прибор непосредственно к аккумулятору. Если на автомобиле для подключения прибора не осталось свободного контура, подключите прибор к любому контуру, имеющему большую мощность, чем плавкий предохранитель прибора, таким образом, чтобы при сгорании предохранителя не были разомкнуты другие контуры.

Клавиша переустановки

Когда монтаж и подключения завершены, нажмите клавишу переустановки с помощью шариковой ручки и т.д или аналогичного предмета.

Újraállító gomb
Клавиша переустановки

Bekötési rajz

1. példa/Пример 1

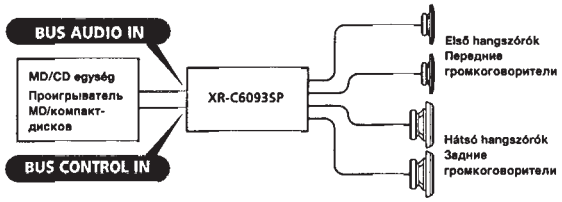
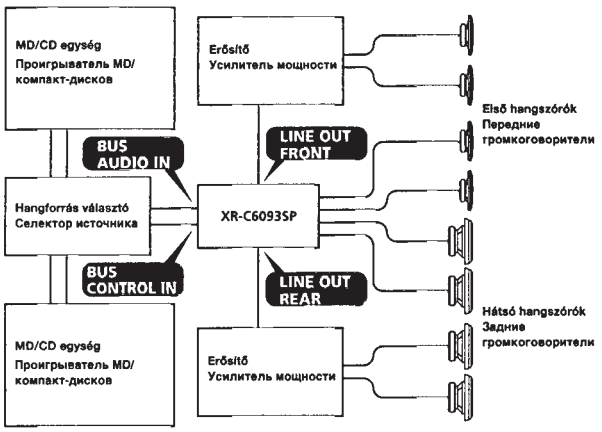


Диаграмма соединений

2. példa/Пример 2

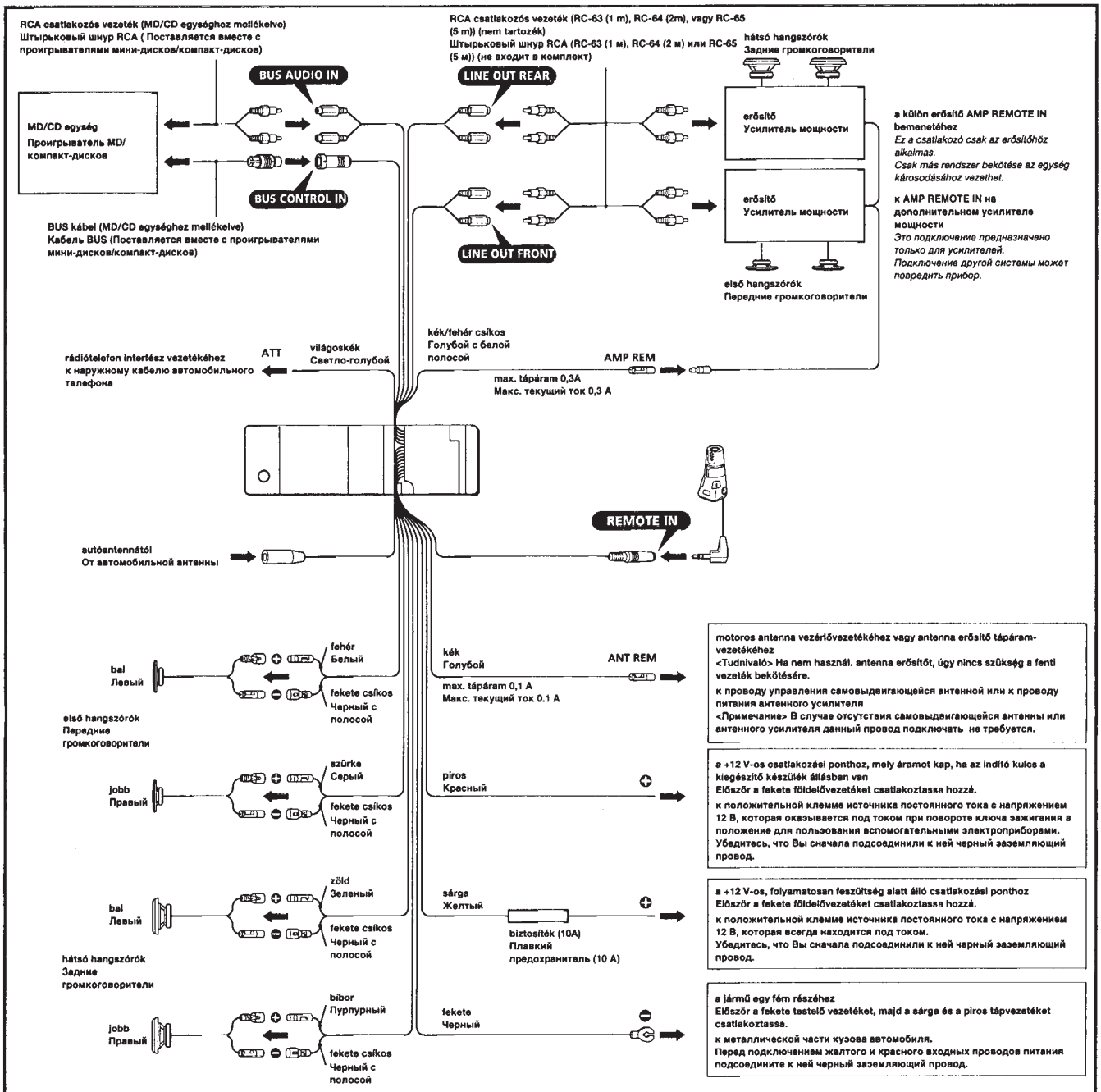


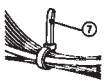
Két vagy több váltó bekötéséhez használja a külön megvásárolandó XA-C30 cikkszámú forrásválasztót és az RC-61 cikkszámú (1m-es), vagy RC-62 cikkszámú (2 m-es) BUS-kábelt.

При подключении двух или более проигрывателей необходим селектор источника XA-C30 (дополнительное оборудование) и кабель BUS RC-61 (1 м) или RC-62 (2 м) (дополнительное оборудование).

Bekötési példák

Соединения в примере


RCA csatlakozós vezeték (MD/CD egységhez mellékelve)
Штырьковый шнур RCA (Поставляется вместе с проигрывателями мини-дисков/компакт-дисков)
RCA csatlakozós vezeték (RC-63 (1 m), RC-64 (2m), vagy RC-65 (5 m)) (nem tartozék)
Штырьковый шнур RCA (RC-63 (1 м), RC-64 (2 м) или RC-65 (5 м)) (не входит в комплект)
hátsó hangszórók
Задние громкоговорители
BUS AUDIO IN
LINE OUT REAR
MD/CD egység
Проигрыватель MD/ компакт-дисков
BUS CONTROL IN
erősítő
Усилитель мощности
a külön erősítő AMP REMOTE IN bemenetéhez
Ez a csatlakozó csak az erősítőhöz alkalmas.
Csak más rendszer bekötése az egység károsodásához vezethet.
BUS kábel (MD/CD egységhez mellékelve)
Кабель BUS (Поставляется вместе с проигрывателями мини-дисков/компакт-дисков)
LINE OUT FRONT
erősítő
Усилитель мощности
к AMP REMOTE IN на дополнительном усилителе мощности
Это подключение предназначено только для усилителей.
Подключение другой системы может повредить прибор.
első hangszórók
Передние громкоговорители
kék/fehér csíkos
Голубой с белой полосой
rádiótelefon interfész vezetékéhez
к наружному кабелю автомобильного телефона
ATT
világoskék
Светло-голубой
AMP REM
max. tápáram 0,3A
Макс. текущий ток 0,3 А
REMOTE IN
autóantennától
От автомобильной антенны
fehér
Белый
bal
Левый
fekete csíkos
Черный с полосой
első hangszórók
Передние громкоговорители
kék
Голубой
ANT REM
max. tápáram 0,1 A
Макс. текущий ток 0.1 A
motoros antenna vezérlővezetékéhez vagy antenna erősítő tápáram-vezetékéhez
<Tudnivaló> Ha nem használ. antenna erősítőt, úgy nincs szükség a fenti vezeték bekötésére.
к проводу управления самовыдвигающейся антенной или к проводу питания антенного усилителя
<Примечание> В случае отсутствия самовыдвигающейся антенны или антенного усилителя данный провод подключать не требуется.
szürke
Серый
jobb
Правый
fekete csíkos
Черный с полосой
piros
Красный
a +12 V-os csatlakozási ponthoz, mely áramot kap, ha az indító kulcs a kiegészítő készülék állásban van
Először a fekete földelővezetéket csatlakoztassa hozzá.
к положительной клемме источника постоянного тока с напряжением 12 В, которая оказывается под током при повороте ключа зажигания в положение для пользования вспомогательными электроприборами.
Убедитесь, что Вы сначала подсоединили к ней черный заземляющий провод.
zöld
Зеленый
bal
Левый
fekete csíkos
Черный с полосой
sárga
Желтый
a +12 V-os, folyamatosan feszültség alatt álló csatlakozási ponthoz
Először a fekete földelővezetéket csatlakoztassa hozzá.
к положительной клемме источника постоянного тока с напряжением 12 В, которая всегда находится под током.
Убедитесь, что Вы сначала подсоединили к ней черный заземляющий провод.
biztosíték (10A)
Плавкий предохранитель (10 А)
hátsó hangszórók
Задние громкоговорители
bíbor
Пурпурный
jobb
Правый
fekete
Черный
fekete csíkos
Черный с полосой
a jármű egy fém részéhez
Először a fekete testelő vezetéket, majd a sárga és a piros tápvezetéket csatlakoztassa.
к металлической части кузова автомобиля.
Перед подключением желтого и красного входных проводов питания подсоедините к ней черный заземляющий провод.



Bekötés után a mellékelt ⑦ kapocs segítségével fűzze össze a forgó vezérlő csatlakozó kábelét az audio berendezés egyéb csatlakozó kábeleivel. Ügyeljen arra, hogy a csatlakozó kábel a dugasz és a kapocs között ne feszüljön meg.

После подключения скрутите соединительный провод вращающегося дистанционного переключателя в один пучок с другими проводами аудиоаппаратуры, пользуясь прилагаемым зажимом ⑦. При этом не допускайте натяжения провода между клеммой и зажимом.

Tudnivalók a vezérlővezetékekről
- *A motoros antenna vezérlővezetéke (kék) +12 V egyenfeszültséget kap, ha bekapcsolja a készüléket vagy az ATA (automatikus rádió aktivizálás) funkciót.*
- *Ha a készülékhez motoros antennát csatlakoztat, úgy kizárólag reládobozzal felszerelt motoros antennát használjon.*

Memória megtartás
Ha csatlakoztatja a sárga tápvezetéket, úgy folyamatosan feszültség alatt marad a memória áramkör, még akkor is, ha kikapcsolja a gyújtást.

Tudnivalók a hangszórók csatlakoztatásáról
- *Kérjük kapcsolja ki a készüléket a hangszórók csatlakoztatása előtt.*
- *4-8 Ohm impedanciájú, megfelelő teljesítményű hangszórókat használjon, ellenkező esetben ugyanis előfordulhat, hogy a hangszórók károsodnak.*
- *Ne csatlakoztassa a hangszórókat az autó fém szerkezetéhez és ne csatlakoztassa a jobb hangszórót a bal hangszóróhoz.*
- *A hangszórókat semmi esetre se kösse be párhuzamosan.*
- *Ne csatlakoztasson aktív (beépített erősítővel felszerelt) hangszórókat a készülékhez, ellenkező esetben ugyanis károsodhatnak az aktív hangszórók. A készülékhez csak passzív hangszórókat szabad csatlakoztatni.*

Примечания по управляющим проводам
- *Провод, управляющий питанием антенны, (голубой) подает постоянное напряжение + 12 В, если Вы включили радиоприемник или функцию ATA (Автоматическая активация тюнера).*
- *Электрическая антенна без коробки реле не может быть использована с данным прибором.*

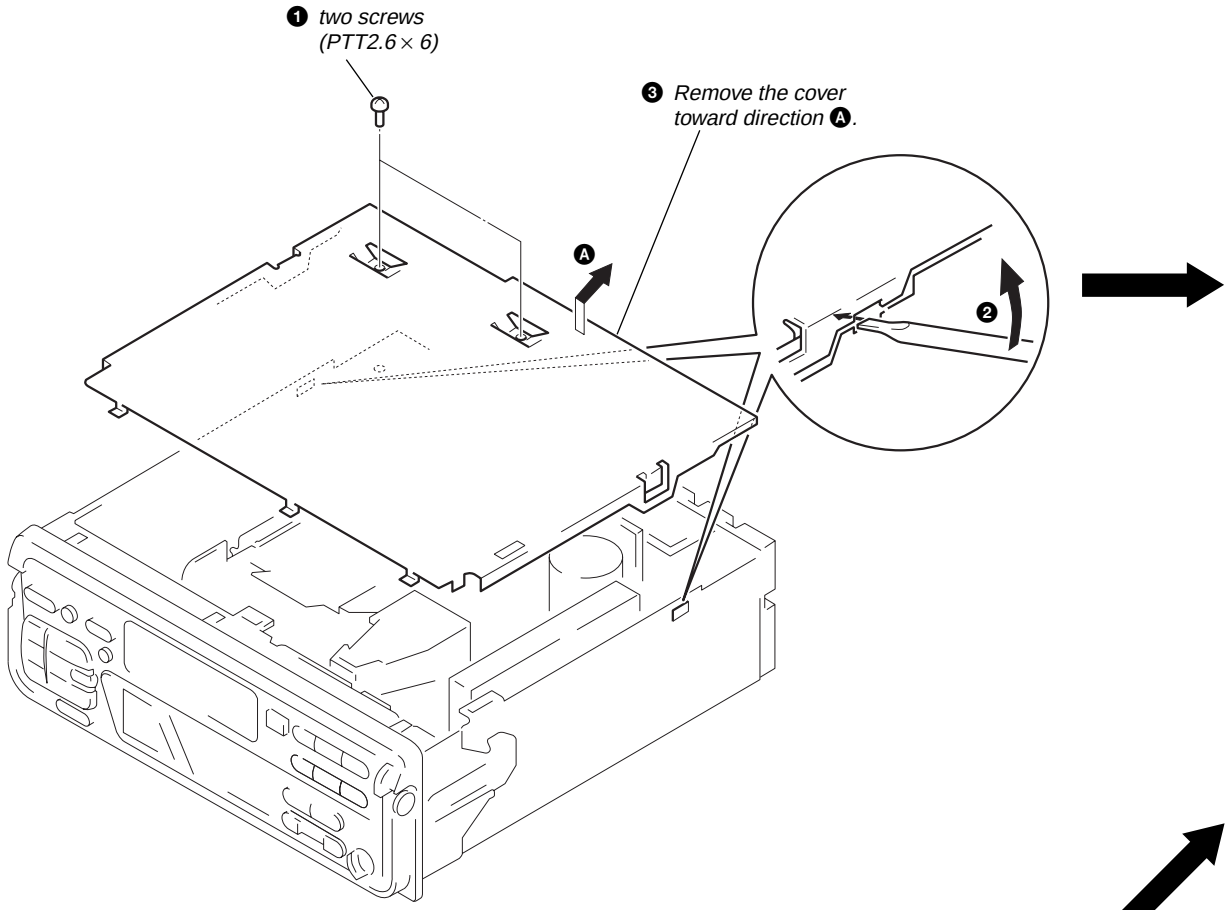
Соединение поддержки памяти
Если желтый сетевой провод подключен, питание будет подаваться для поддержки памяти всегда, даже при выключенном зажигании.

Примечания по подключению громкоговорителей
- *Перед подключением громкоговорителей выключите прибор.*
- *Используйте громкоговорители с сопротивлением от 4 до 8 Ом и с адекватной мощностью. Иначе громкоговорители могут быть повреждены.*
- *Не подсоединяйте клеммы громкоговорителей на массу и не соединяйте клеммы правых громкоговорителей с клеммами левых.*
- *Не пытайтесь подключить громкоговорители параллельно.*
- *Не подключайте активные громкоговорители (со встроенным усилителем) к клеммам громкоговорителей на приборе. Это может повредить активные громкоговорители. Поэтому убедитесь, что подключаете пассивные громкоговорители к данным клеммам.*

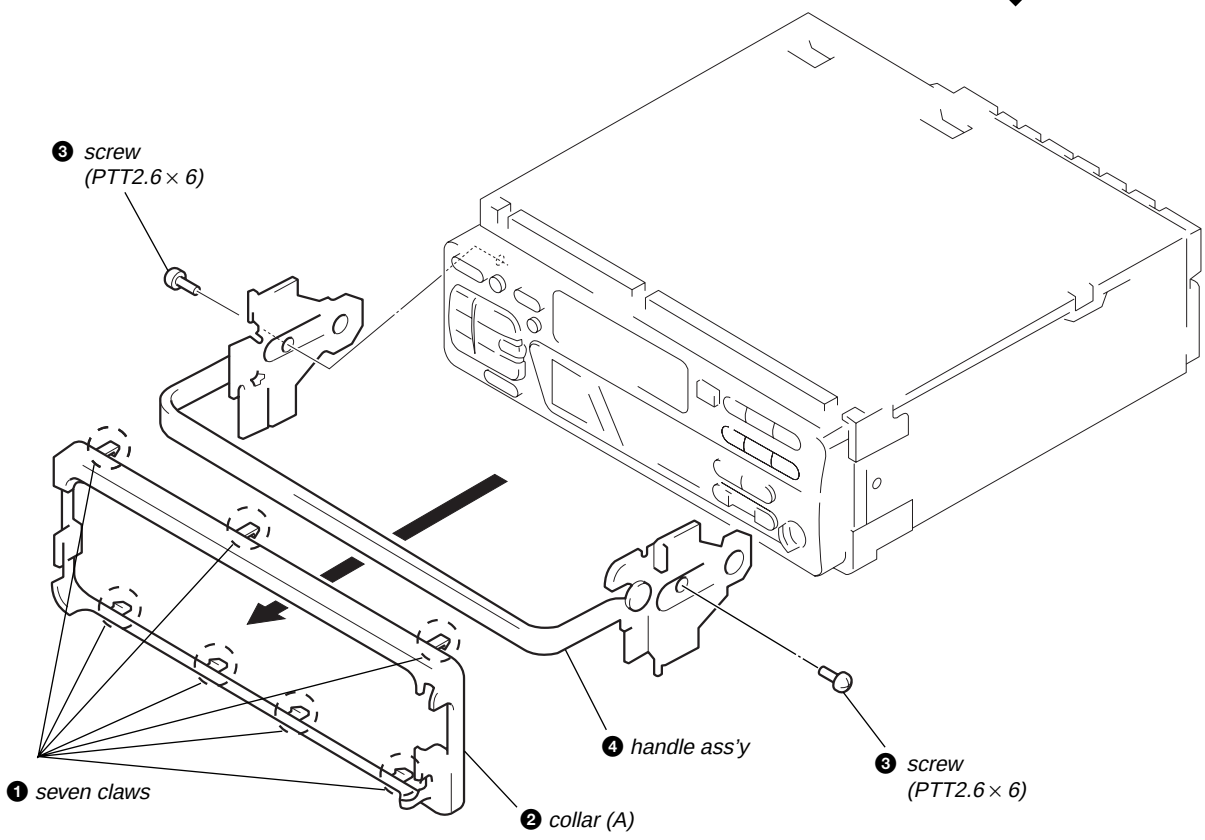
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

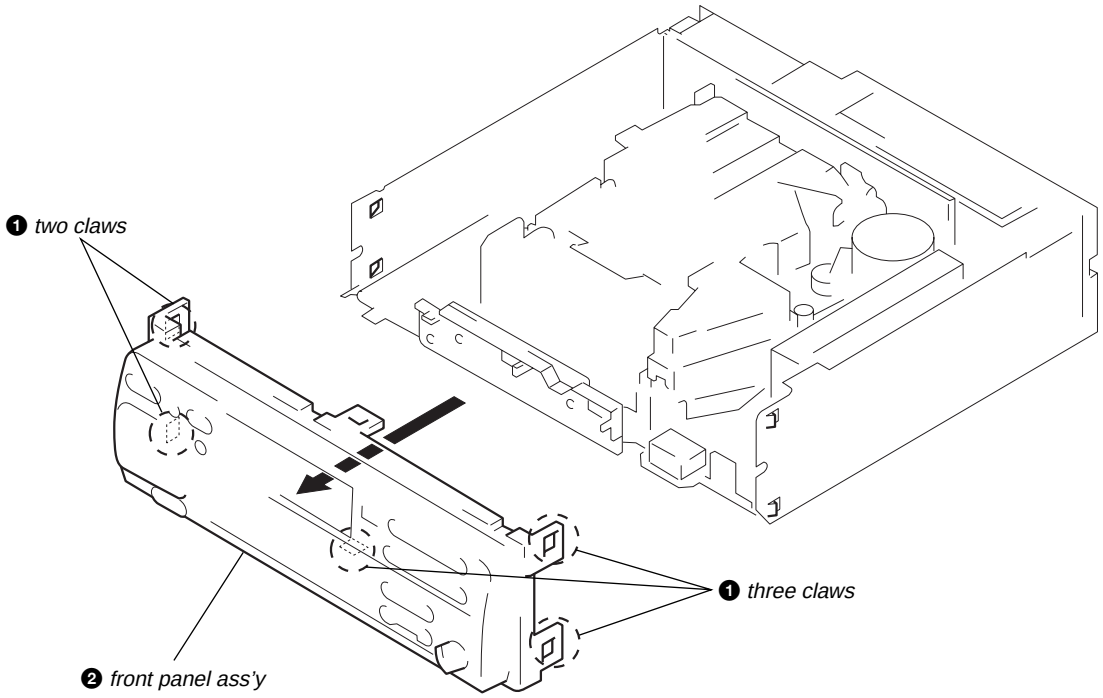
COVER



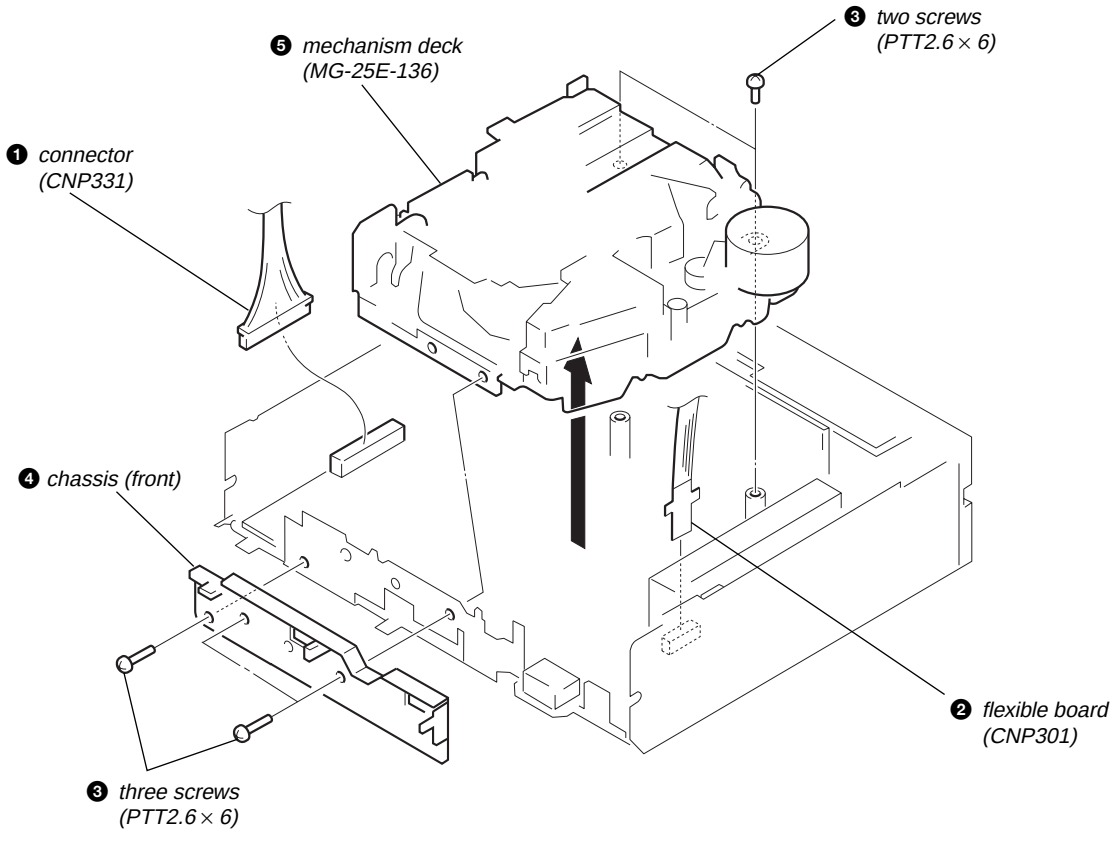
COLLAR (A), HANDLE ASS'Y



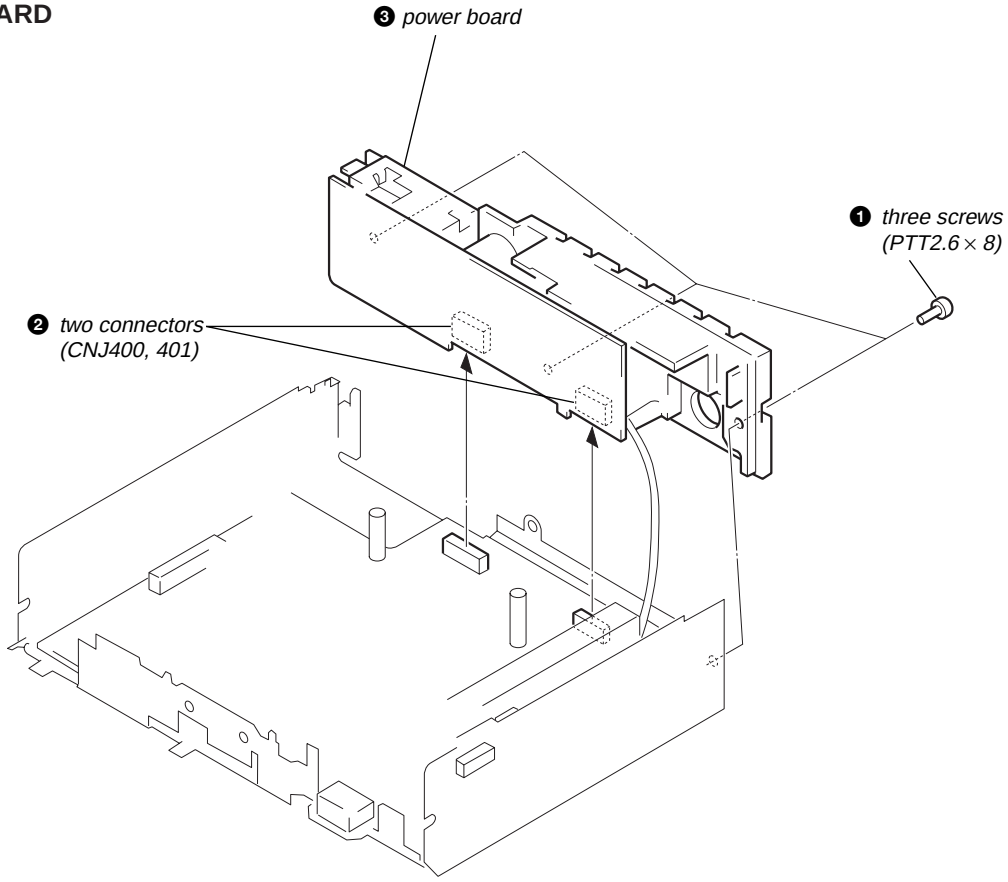
FRONT PANEL ASS'Y



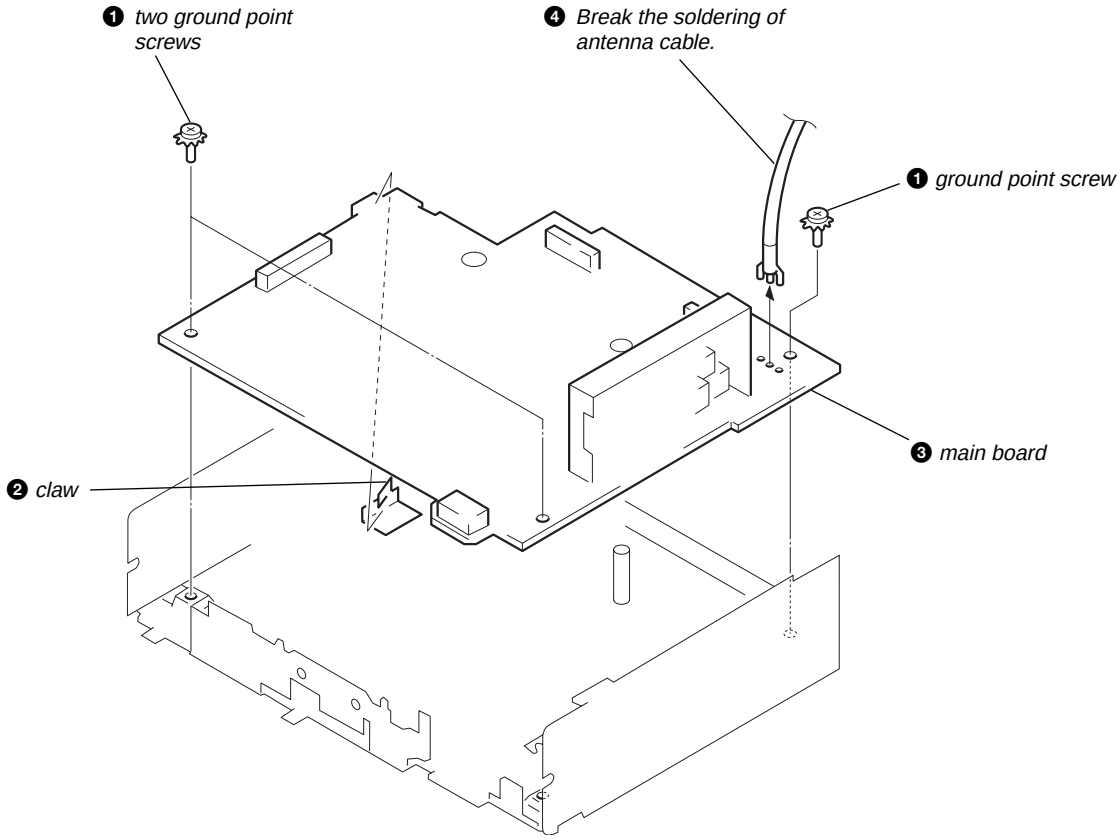
MECHANISM DECK (MG-25E-136)



POWER BOARD



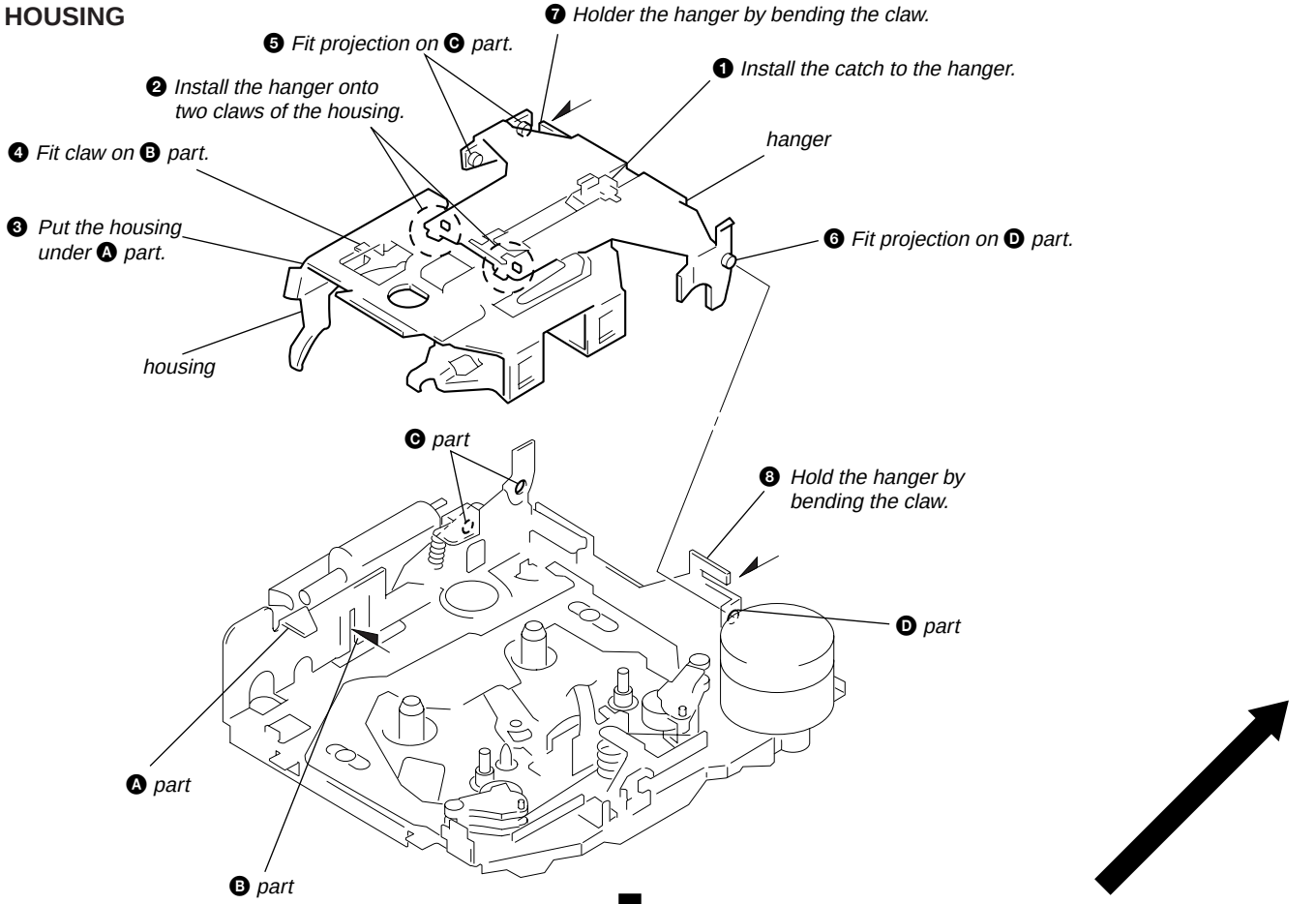
MAIN BOARD



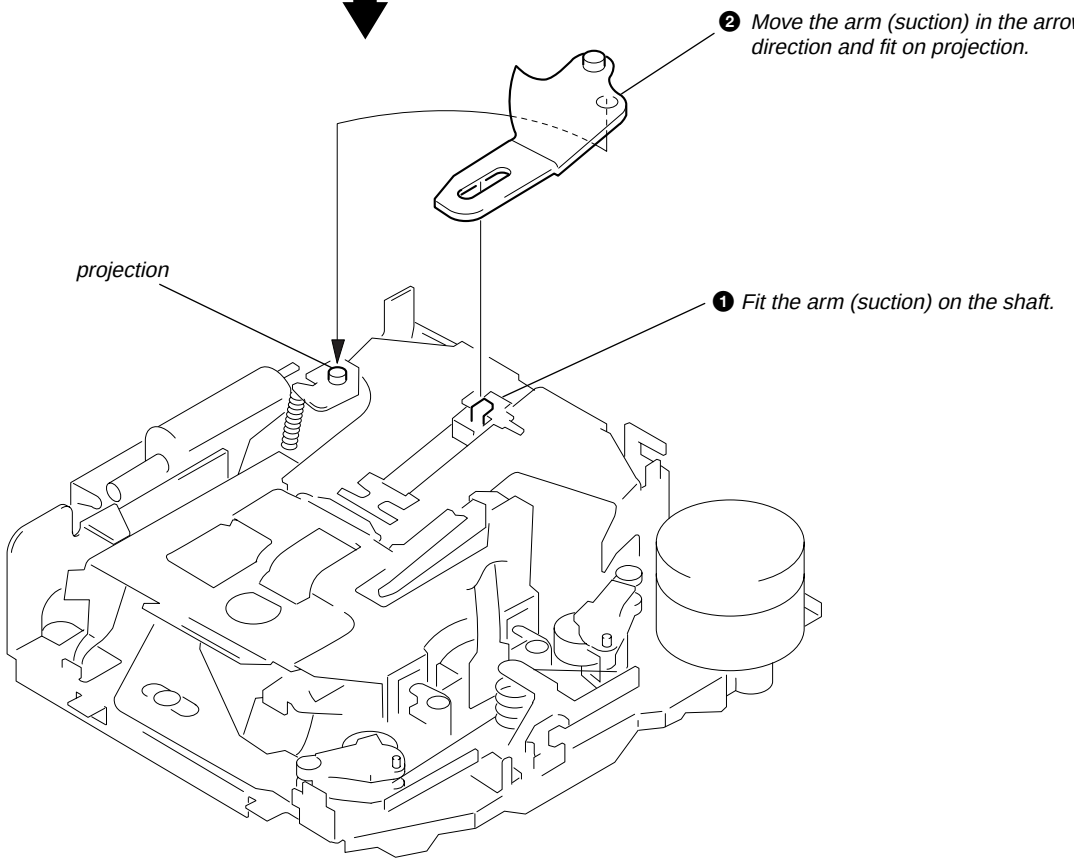
SECTION 3
ASSEMBLY OF MECHANISM DECK

Note: Follow the assembly procedure in the numerical order given.

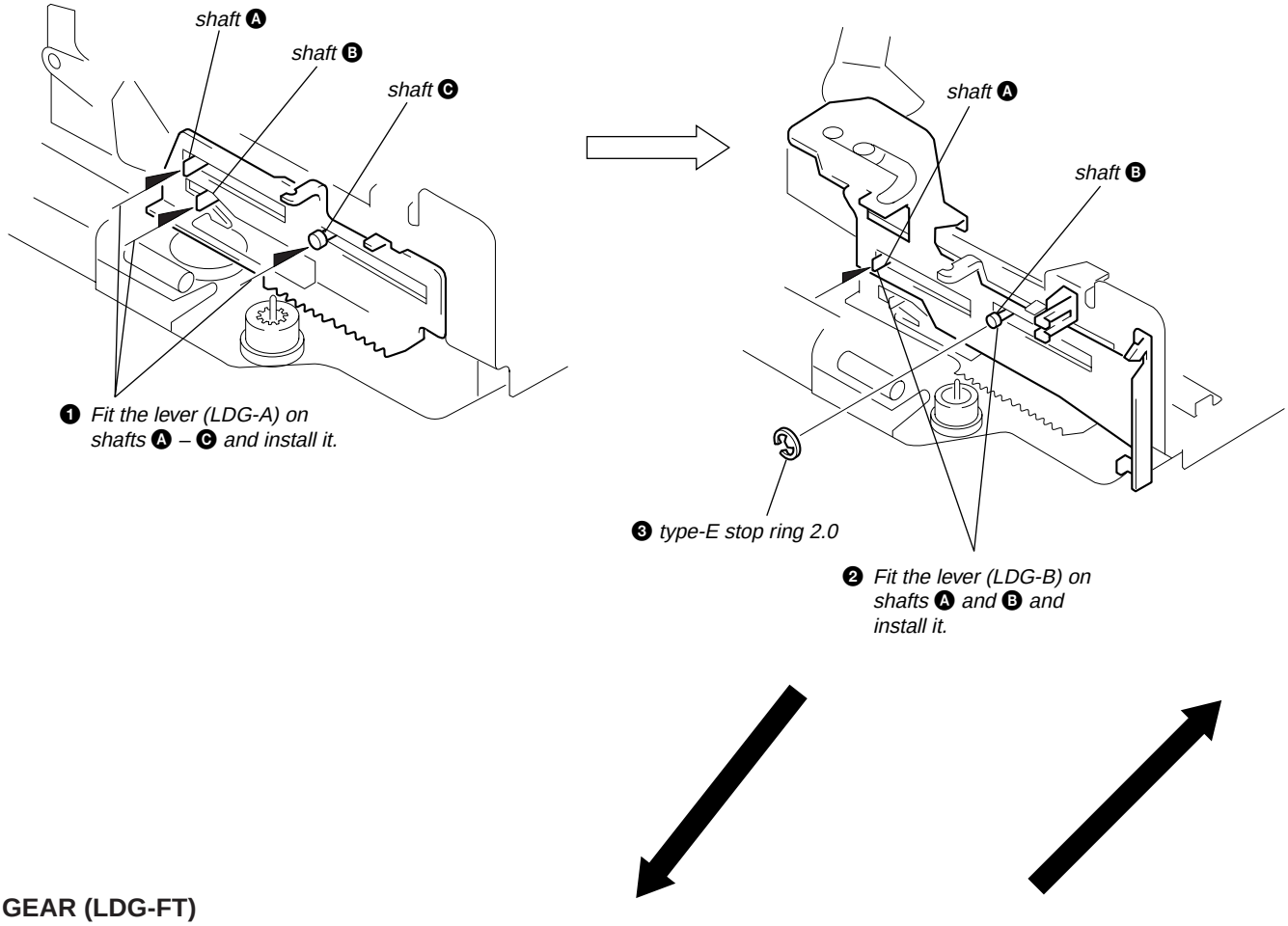
HOUSING


❼ Holder the hanger by bending the claw.
❺ Fit projection on Ⓒ part.
❶ Install the catch to the hanger.
❷ Install the hanger onto two claws of the housing.
hanger
❹ Fit claw on Ⓑ part.
❸ Put the housing under Ⓐ part.
❻ Fit projection on Ⓓ part.
housing
Ⓒ part
❽ Hold the hanger by bending the claw.
Ⓓ part
Ⓐ part
Ⓑ part

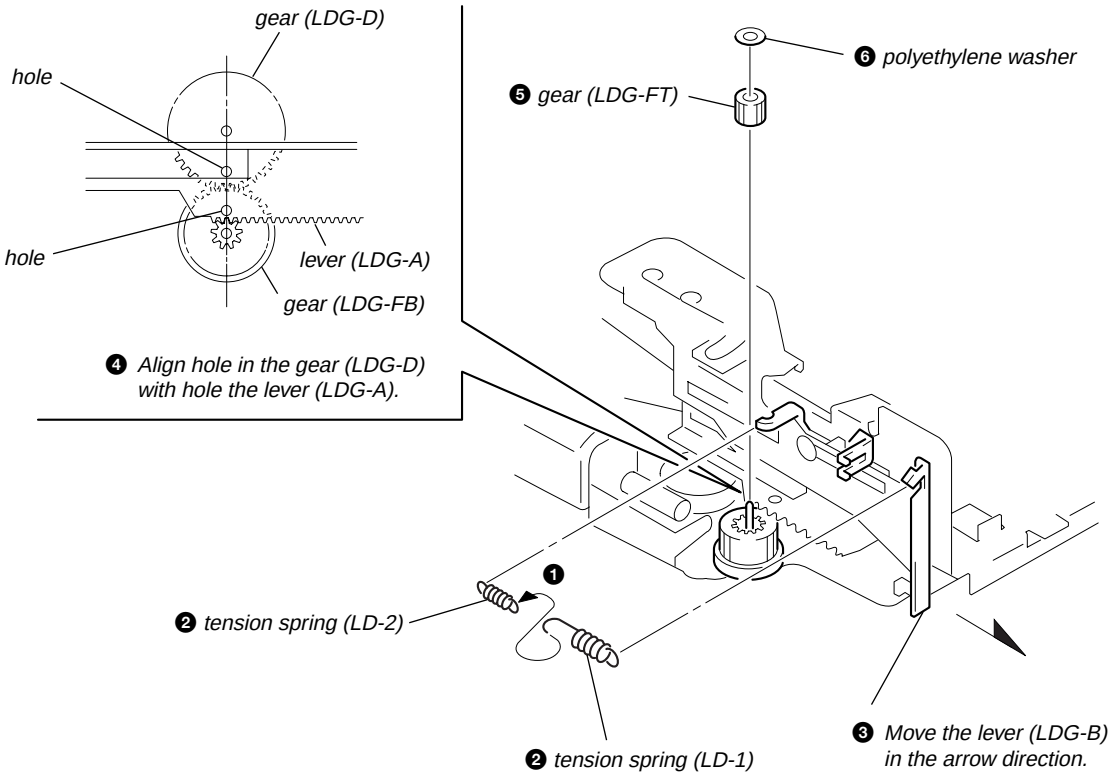
ARM (SUCTION)



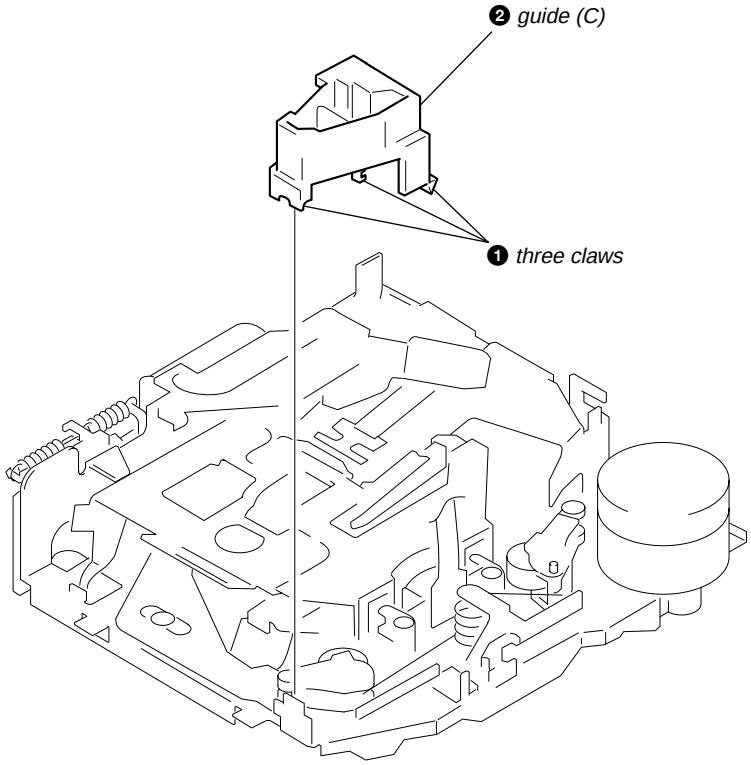
LEVER (LDG-A) / (LDG-B)


shaft Ⓐ
shaft Ⓑ
shaft Ⓒ
❶ Fit the lever (LDG-A) on shafts Ⓐ – Ⓒ and install it.
shaft Ⓐ
shaft Ⓑ
❸ type-E stop ring 2.0
❷ Fit the lever (LDG-B) on shafts Ⓐ and Ⓑ and install it.

GEAR (LDG-FT)



GUIDE (C)



SECTION 4
MECHANICAL ADJUSTMENTS

1. Clean the following parts with a denatured-alcohol-moistened swab:
   playback head, pinch roller, rubber belt, capstan, idlers
2. Demagnetize the playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the power supply voltage unless otherwise noted.

• Torque Measurement

Mode	Torque Meter	Meter Reading
Forward	CQ-102C	30 - 65 g•cm (0.42 - 0.90 oz•inch)
Forward Back Tension	CQ-102C	0.5 - 4.5g•cm (0.01 - 0.06 oz•inch)
Reverse	CQ-102RC	30 - 65 g•cm (0.42 - 0.90 oz•inch)
Reverse Back Tension	CQ-102RC	0.5 - 4.5g•cm (0.01 - 0.06 oz•inch)
FF, REW	CQ-201B	60 - 200 g•cm (0.83 - 2.78 oz•inch)

• Tape Tension Measurement

Mode	Tension Meter	Meter Reading
Forward	CQ-403A	more than 90 g (more than 3.18 oz)
Reverse	CQ-403R	more than 90 g (more than 3.18 oz)

SECTION 5
ELECTRICAL ADJUSTMENTS

TAPE DECK SECTION | 0 dB= 0.775 V

1. The adjustments should be performed in the order given in this service manual.
2. The adjustments should be performed for both L-CH and R-CH.

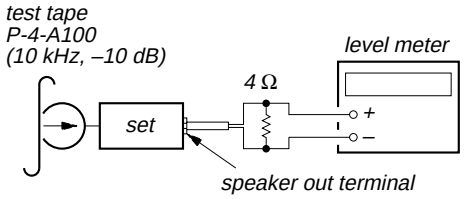
Test Tape

Type	Signal	Used for
P-4-A100	10 kHz, –10 dB	head azimuth adjustment
WS-48A	3 kHz, 0 db	tape speed adjustment

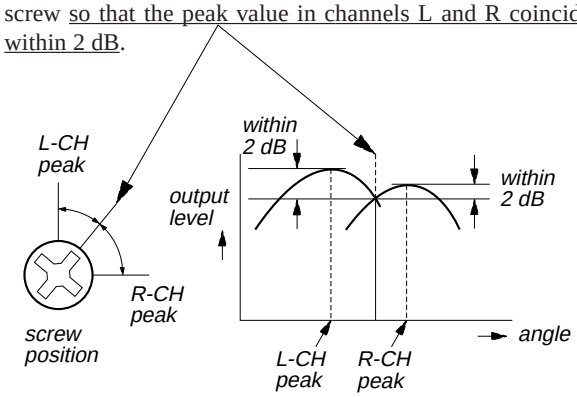
PB Head Azimuth Adjustment

Procedure:

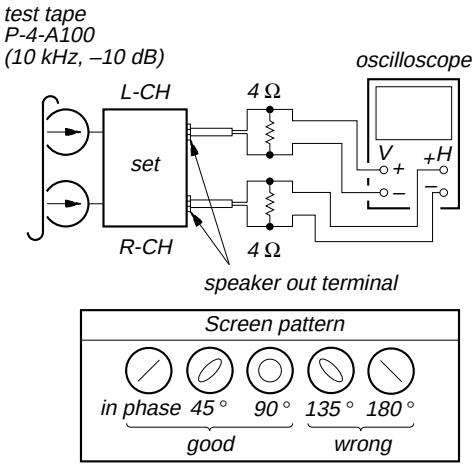
1. Put the set into the FWD PB mode.



2. Turn the screw and check the output peak value. Adjust the screw so that the peak value in channels L and R coincides within 2 dB.

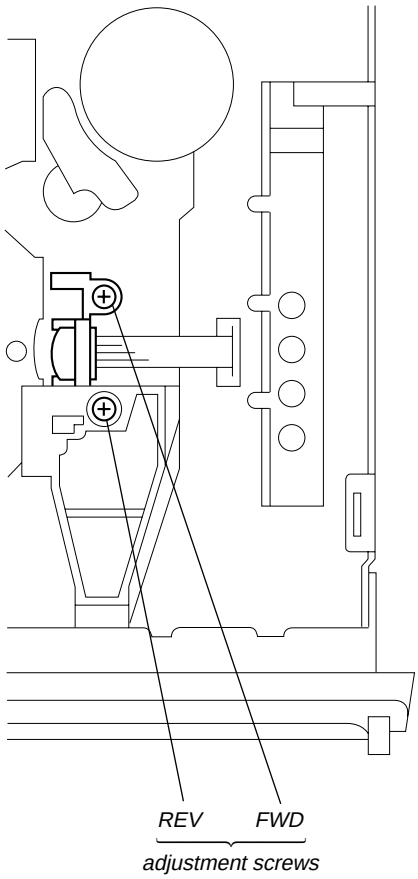


3. Check the phase in the FWD PB mode.



4. Repeat the above adjustment for the REV PB mode.
5. Check that output level difference between FWD PB mode and REV PB mode is within 4 dB.

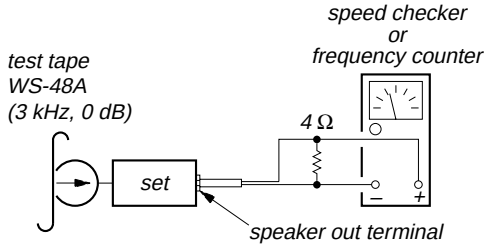
Adjustment Location: PB head



See the adjustment location from on page 17 for the adjustment.

Tape Speed Adjustment

Setting:



Procedure:

1. Put the set into the FWD PB mode.
2. Adjust adjustment resistor for inside capstan motor so that the reading on the speed checker or frequency counter becomes in specification.

Specification: Constant speed

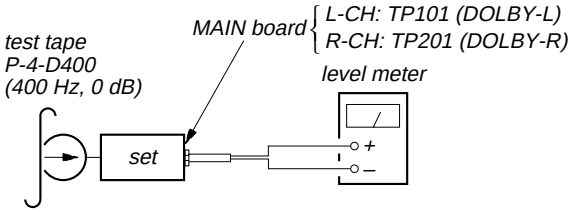
Speed checker	Frequency counter
–2 to +3%	2,940 to 3,090 Hz

Adjustment Location: See page 17.

DOLBY Level Adjustment

Setting:

Preset [3] (DOLBY) button	:	NR OFF
SEL (BAS) button	:	Center
SEL (TRE) button	:	Center
SEL (BAL) button	:	Center
SEL (FAD) button	:	Center
SEL (VOL) button	:	Maximum
D-BASS control	:	OFF



Procedure:

1. Put the set into the FWD PB mode.
2. Adjust RV121 (L-CH) and RV221 (R-CH) so that the level meter reading is –6 ± 0.5 dB (0.37 to 0.41 V).

Adjustment Location: See page 17.

TUNER SECTION

0 dB=1 µV

Cautions during repair

When the tuner unit is defective, replace it by a new one because its internal block is difficult to repair.

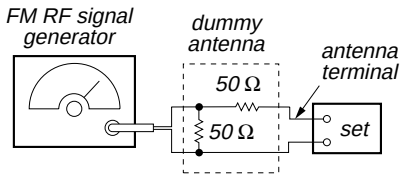
Note: Adjust the tuner section in the sequence shown below.

1. FM Auto Scan/Stop Level Adjustment.
2. FM Stereo Separation Adjustment.
3. MW Auto Scan/Stop Level Adjustment.
4. FM Polar VCO Adjustment.
5. FM Polar Pilot Adjustment.

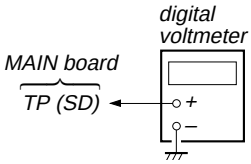
FM Auto Scan/Stop Level Adjustment

Setting:

SOURCE button: FM 1



Carrier frequency : 98.00MHz
Output leve : 20 dB (10.0 µV)
Mode : mono
Modulation : 1 kHz, 22.5 kHz deviation (30 %)



Procedure:

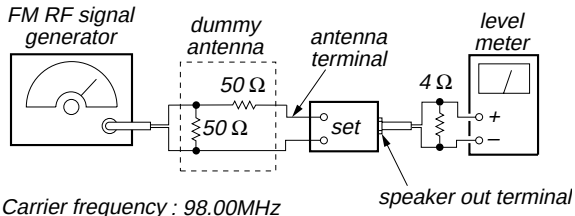
1. Tune the set to 98.0 MHz.
2. Connect the digital voltmeter to TP (SD) on MAIN board.
3. Adjust RV2 on TU1 so that the reading on the digital voltmeter changes point from low to high.

Adjustment Location: See page 17.

FM Stereo Separation Adjustment

Setting:

SOURCE button: FM 1



Carrier frequency : 98.00MHz
Output level : 70 dB (3.2 mV)
Mode : stereo
Modulation : main : 1 kHz, 20 kHz deviation (26.7 %)
sub : 1 kHz, 20 kHz deviation (26.7 %)
pilot : 19 kHz, 7.5 kHz deviation (10 %)

Procedure:

FM Stereo signal generator output channel	Level meter connection	Level meter reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV4 on TU1 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV4 on TU1 for minimum reading.

L-CH Stereo separation: Ⓐ-Ⓑ
R-CH Stereo separation: Ⓒ-Ⓓ
The separations of both channels should be equal.

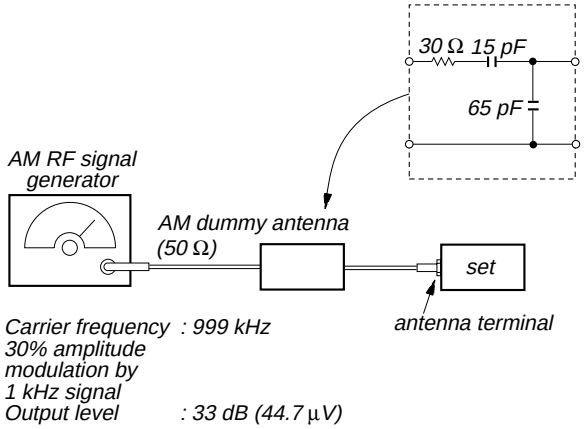
Specification: Separation more than 26 dB

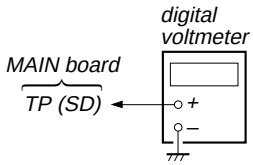
Adjustment Location: See page 17.

MW Auto Scan/Stop Level Adjustment

Setting:

SOURCE and MODE button: MW


30 Ω 15 pF
65 pF
AM RF signal generator
AM dummy antenna (50 Ω)
set
antenna terminal
Carrier frequency : 999 kHz
30% amplitude modulation by 1 kHz signal
Output level : 33 dB (44.7 µV)



Procedure:

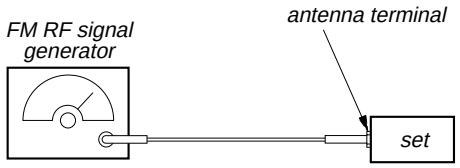
1. Tune the set to 999 kHz
2. Connect the digital voltmeter to TP (SD) on MAIN board.
3. Adjust RV1 on TU1 so that the reading on the digital voltmeter changes point from low to high.

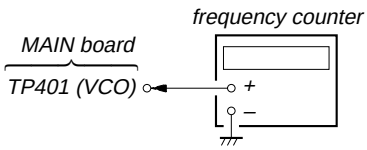
Adjustment Location: See page 17.

FM Polar VCO Adjustment

Setting:

SOURCE button: FM2





Procedure:

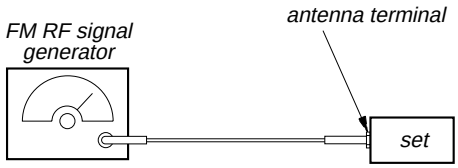
1. Tune the set to 69.5 MHz, and set the internal modulation level of the FM RF signal generator to 10 kHz deviation (20%).
2. Connect the frequency counter to the TP401 (VCO) on MAIN board.
3. Adjust RV402 so that the reading on the frequency counter becomes to 31.25 ± 0.1 kHz.

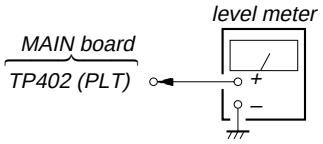
Adjustment Location: See page 17.

FM Polar Pilot Adjustment

Setting:

SOURCE button: FM2





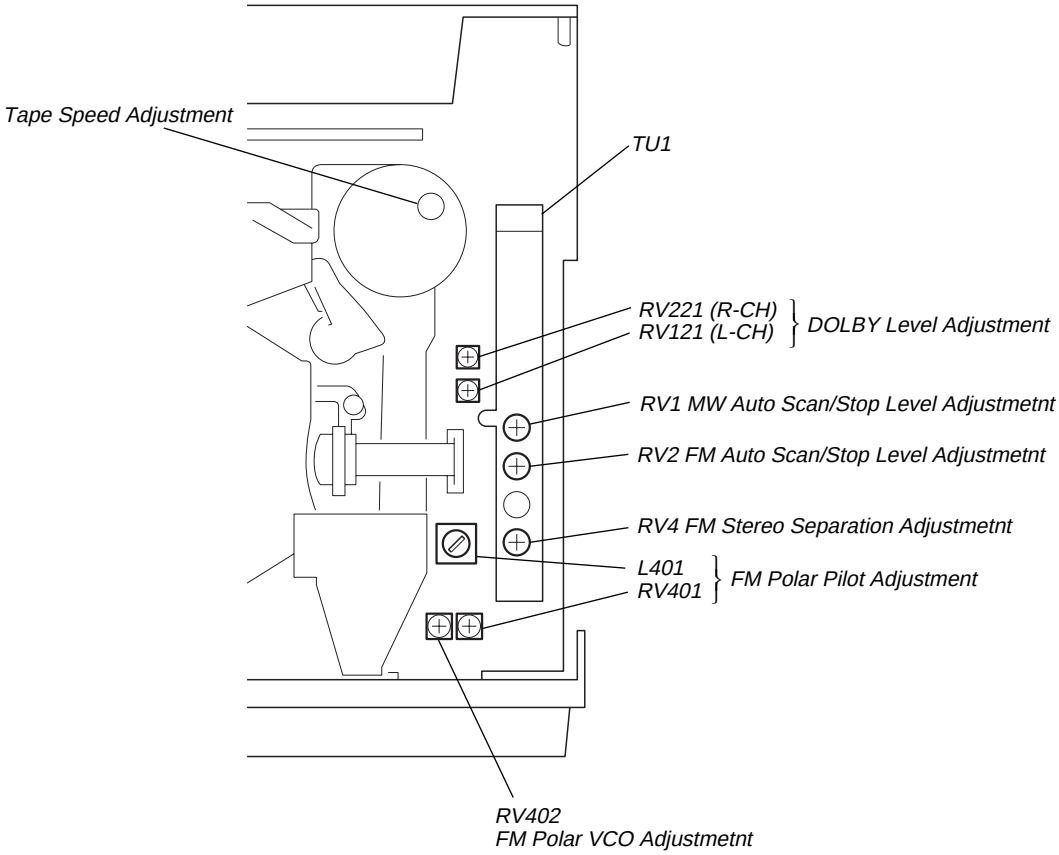
Procedure:

1. Connect the level meter to the TP402 (PLT) on MAIN board.
2. Set the modulation frequency of the FM RF signal generator to 1 kHz, 40 kHz deviation (80 %)
3. Then output level is supposing that (A) dB.
4. Set the modulation frequency of the FM RF signal generator to 31.25 kHz, 10 kHz deviation (20%)
5. Adjust L401 so that the reading on the level meter becomes to maximum.
6. Adjust RV401 so that the reading on the level meter becomes to (A) + 13.0 dB ± 0.5 dB.

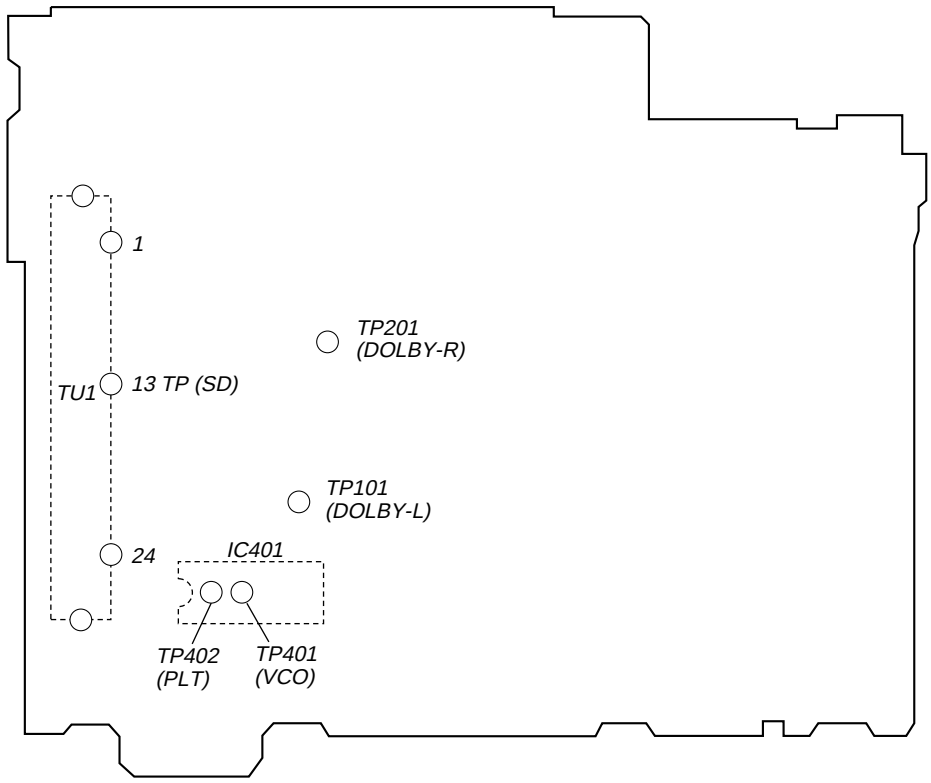
Adjustment Location: See page 17.

Adjustment Location:

– SET UPPER VIEW –



[MAIN BOARD] (CONDUCTOR SIDE)



SECTION 6
DIAGRAMS

6-1. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC701 μPD78058GC-F54-3B9 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Function
1	DSEL	I	Destination setting terminal (fixed at center voltage)
2	RCIN0	I	Rotary remote commander shift key A/D input terminal
3	SD IN	I	Station detector detect input from the FM/AM tuner unit (TU1) Stop level for SEEK, BTM, etc. is determined SD is present at input of "H"
4	AVSS	—	Ground terminal (for A/D converter)
5	$\overline{\text{ST}}$	I/O	Input of FM stereo detection signal from FM/AM tuner unit (TU1), and output of forced monaural control signal to FM/AM tuner unit (TU1) (Commonly used for stereo display input and forced monaural output) FM stereo detection at input of "L", forced monaural at output of "L"
6	PLLCE	O	PLL serial chip enable output to the FM/AM PLL (IC31)
7	AVREF1	I	Reference voltage (+5V) input terminal (for D/A converter)
8	PLLSI	I	PLL serial data input from the FM/AM PLL (IC31)
9	PLLSO	O	PLL serial data output to the FM/AM PLL (IC31)
10	PLLCKO	O	PLL serial data transfer clock signal output to the FM/AM PLL (IC31)
11	$\overline{\text{P-STIN}}$	I	Polar stereo signal input from the polar multiplexer (IC401)
12	LCDSO	O	Serial data output to the liquid crystal display driver (IC901)
13	LCDCKO	O	Serial data transfer clock signal output to the liquid crystal display driver (IC901)
14	LCDCE	O	Chip enable output to the liquid crystal display driver (IC901)
15	$\overline{\text{LCDINH}}$	O	Blank indicate control signal output to the liquid crystal display driver (IC901) "L": no display
16	UNISI	I	Serial data input from the bus interface (IC571) (for SONY bus)
17	UNISO	O	Serial data output to the bus interface (IC571) (for SONY bus)
18	UNICKI	I	Serial data reading clock signal input terminal (for SONY bus)
19	UNICKO	O	Serial data transfer clock signal output to the bus interface (IC571) (for SONY bus)
20	$\overline{\text{BUSON}}$	O	Bus on/off control signal output to the bus interface (IC571) (for SONY bus) "L": bus on
21	$\overline{\text{SYSRST}}$	O	Reset signal output to the bus interface (IC571) (for SONY bus) "L": reset
22	AMPON	O	Standby control signal output to the power amplifier (IC471) "L": standby
23	$\overline{\text{AMPMUTE}}$	O	Muting control signal output to the power amplifier (IC471) "L": muting on
24	TUNON	O	Tuner system power supply on/off control signal output to the BA3918 (IC601) "H": tuner on
25	FM ON	O	FM system power supply on/off control signal output to the BA3918 (IC601) "H": FM on
26	PW ON	O	Main system power supply on/off control signal output to the BA3918 (IC601) "H": power on
27	COLOR	I	Input terminal to set whether the illumination color change function is present or not "L": illumination color change function is present (fixed at "L")
28	$\overline{\text{AMS ON}}$	O	Tape auto music sensor control signal output to the CXA2510Q (IC101) "L" is output to lower the gain for audio level at FF/REW
29	REL	I	Reel table rotation detect signal input from the take-up and supply reel sensor
30	$\overline{\text{MTLIN}}$	I	Input terminal to set whether the auto metal function is present or not "L": auto metal function is present (fixed at "L")
31	POS3	I	Tape position detect input from the tape operation switch on the mechanism block
32	POS2	I	
33	GND	—	Ground terminal
34	POS0	I	Tape position detect input from the tape operation switch on the mechanism block
35	POS1	I	
36	LM LOD	O	Loading/tape operation motor control signal output to the LB1638M (IC651) (For the loading direction and forward side operation) *1
37	LM EJ	O	Loading/tape operation motor control signal output to the LB1638M (IC651) (For the eject direction and reverse side operation) *1

Pin No.	Pin Name	I/O	Function
38	$\overline{\text{N}}$/R OUT	O	Forward/reverse direction control signal output to the CXA2510Q (IC101) "L: forward direction, "H": reverse direction
39	NC	O	Not used (open)
40	CMON	O	Capstan/reel motor (M901) drive signal output terminal "H": motor on
41	TAPEON	O	Tape system power supply on/off control signal output terminal "H": tape on
42	COLSEL	I	Setting terminal for the illumination color "L": amber, "H": green (fixed at "L")
43	RCIN1	I	Rotary remote commander shift key A/D input terminal
44	$\overline{\text{TEST}}$	I	Setting terminal for the test mode "L": test mode (normally fixed at "H")
45	ILLON	O	Power supply on/off control signal output terminal at the illumination and liquid crystal display driver (IC901) "H": power on At power select on mode (refer to pin ⑥③): "H" output at the accessory on At power select off mode (refer to pin ⑥③): "H" output at the power on
46	BEEP	O	Beep sound output terminal
47	MUTE	O	Line muting control signal output terminal "H": line muting on
48	VOLCE	O	Chip enable signal output to the electrical volume (IC301)
49	SUBCE	O	Chip enable signal output for the sub volume Not used in this set (open)
50	VOLCKO	O	Serial data transfer clock signal output to the electrical volume (IC301)
51	SUBCKO	O	Serial data transfer clock signal output for the sub volume Not used in this set (open)
52	VOLSO	O	Serial data output to the electrical volume (IC301)
53	TAPMUT	O	Tape muting on/off control signal output to the CXA2510Q (IC101) "H": tape muting on
54	DOLON	I/O	Dolby control in/out terminal At initial mode: valid/invalid selection input of dolby function ("L" input: valid) At normal mode: dolby on/off control signal output to the CXA2510Q (IC101) "H": dolby on
55	DOLBC	I/O	Dolby B/C selection control in/out terminal At initial mode: dolby B only/dolby B and C type selection input ("L" input: dolby B and C) At normal mode: dolby type selection signal output "L": dolby B, "H": dolby C Not used this function (fixed at "H")
56	$\overline{\text{AMSIN}}$	I	Whether a music is present or not from CXA2510Q (IC101) is detected at auto music sensor "L": music is present, "H": music is not present
57	MTLSEL	I/O	METAL control in/out terminal At initial mode: auto/manual mode selection input of METAL function "L": manual mode At manual mode: METAL on/off control signal output to the CXA2510Q (IC101) "H": METAL on At auto mode: input at $\overline{\text{MTLIN}}$ (pin ㉚)
58	$\overline{\text{AD ON}}$	O	Power supply on/off control signal output for the A/D converter "L": power on
59	RAMBU	I	Internal RAM reset detection signal input terminal Input terminal to check that RAM data are not destroyed due to low voltage This checking is made within 100 msec after reset
60	$\overline{\text{RESET}}$	I	System reset signal input from the reset switch (S901) "L" is input for several 100 msec after power on, then it changes to "H"
61	SIRCS	I	Sircs signal input terminal Not used in this set (fixed at "L")
62	BUIN	I	Battery detect signal input terminal "H": battery on
63	PW SEL	I	Position signal input from the mechanism block (for release of the stop mode) "L": power select off mode (halt mode), "H": power select on mode (operation mode)
64	$\overline{\text{ACCIN}}$	I	Accessory detect signal input terminal "L": accessory on
65	UNISI	I	Serial data input (for release of the stop mode)
66	$\overline{\text{TELMUTE}}$	I	Telephone muting signal input terminal At input of "L", the signal is attenuated by –20 dB

Pin No.	Pin Name	I/O	Function
67	KEYACK	I	Input of acknowledge signal for the key entry Acknowledge signal is input to accept function and eject keys in the power off status On at input of "H"
68	VDD	—	Power supply terminal (+5V)
69	X OUT	O	Main system clock output terminal (5 MHz)
70	X IN	I	Main system clock input terminal (5 MHz)
71	GND	—	Ground terminal
72	XT OUT	O	Sub system clock output terminal (32.768 kHz) Not used in this set (open)
73	XT IN	I	Sub system clock input terminal (32.768 kHz) Not used in this set (fixed at "L")
74	AVDD	—	Power supply terminal (+5V) (for A/D converter)
75	AVREF0	I	Reference voltage input terminal (+5V) (for A/D converter)
76	KEYIN0	I	Key input terminal (A/D input) OFF, SOURCE, MODE ◀II▶, + ▶▶ ▶▶I SEEK AMS, – I◀◀ ◀◀ SEEK AMS, VOLUME –, SEL, VOLUME +, DSPL, ATT keys input (LSW901 to LSW910)
77	KEYIN1	I	Key input terminal (A/D input) ⏏, INTRO 1, REPEAT 2, SHUF/◻◻ 3, BL SKIP 6, ATA 5, BANK/MTL 4, BTM SENS, FILE, PRESET DISC +/– keys input (LSW921 to LSW928, LSW931, LSW930 and LSW932)
78	D-BASS	I	D-BASS switch (SW970) input (A/D input)
79	VSM	I	FM and AM (MW/LW) signal meter voltage detection input from the FM/AM tuner unit (TU1)
80	KEYSEL	I	Setting terminal for the key (fixed at center voltage)

*1 loading/tape operation motor control

MODE / TERMINAL	STOP	LOADING/ FORWARD	EJECT/ REVERSE	BRAKE
LM LOD (pin ㊱)	"L"	"H"	"L"	"H"
LM EJ (pin ㊲)	"L"	"L"	"H"	"H"

6-2. PRINTED WIRING BOARD – MAIN Section –

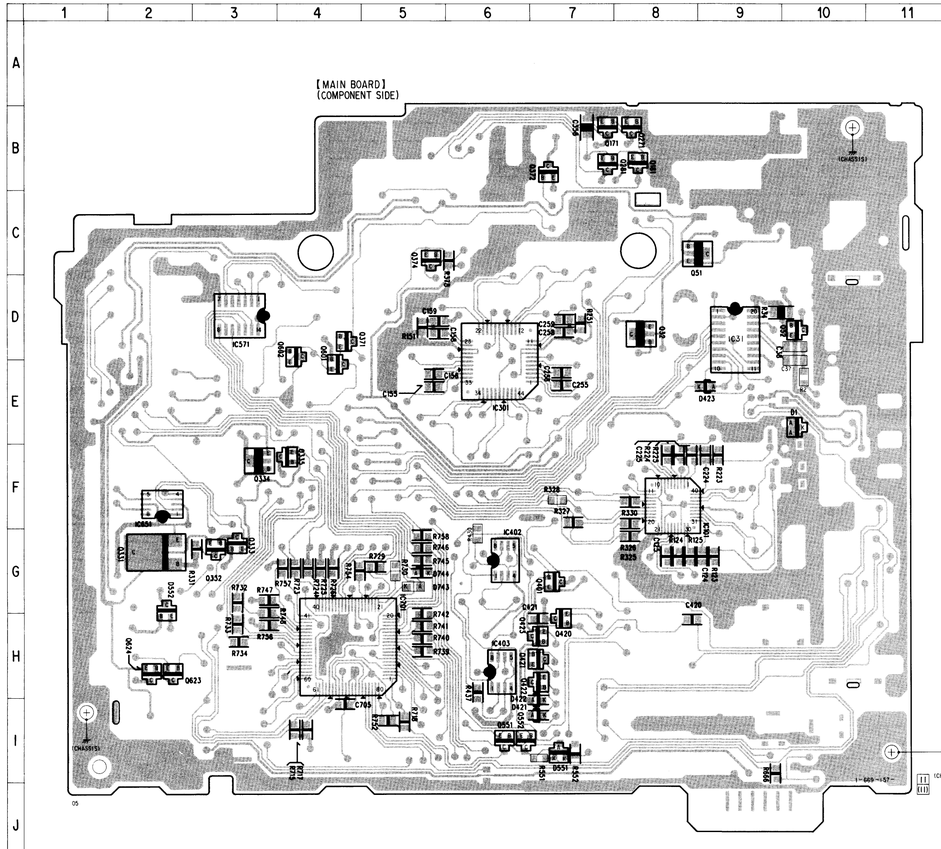
• Semiconductor Location

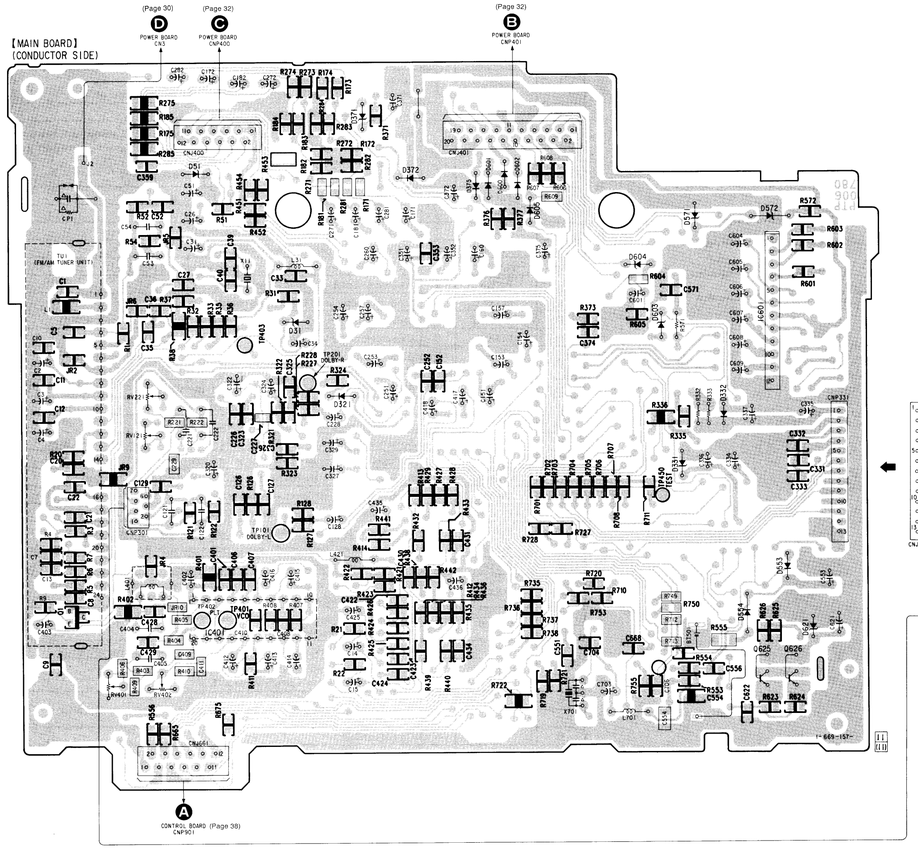
Ref. No.	Location	Ref. No.	Location
D1	E-10	IC571	D-3
D31	E-15	IC601	D-21
D51	C-14	IC651	F-2
D321	E-16	IC701	H-4
D331	F-20		
D332	F-20	Q1	H-13
D371	B-16	Q32	D-8
D372	C-17	Q51	C-8
D375	C-17	Q52	D-10
D421	I-7	Q171	B-7
D422	I-7	Q181	B-8
D423	E-9	Q271	B-8
D551	I-7	Q281	B-7
D552	G-2	Q331	G-2
D553	H-21	Q332	G-3
D554	H-21	Q333	G-3
D571	C-20	Q334	F-3
D572	C-21	Q335	F-4
D600	C-18	Q371	D-4
D601	C-17	Q372	B-7
D602	C-18	Q374	C-5
D603	E-20	Q401	G-7
D604	D-19	Q420	H-7
D605	C-18	Q421	H-7
D621	H-21	Q422	H-7
D743	G-5	Q423	H-7
D744	G-5	Q551	I-6
		Q552	I-6
IC31	D-9	Q601	E-4
IC101	F-8	Q602	D-4
IC301	E-6	Q623	H-2
IC401	H-15	Q624	H-2
IC402	G-6	Q625	I-21
IC403	H-6	Q626	I-21

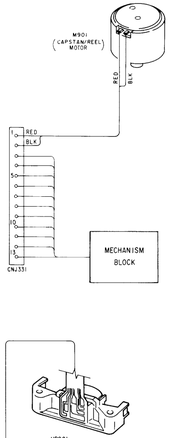
Note on Printed Wiring Board:
- ○——○ : parts extracted from the component side.
- ▲ : internal component.
- ▒▒▒ : Pattern from the side which enables seeing.

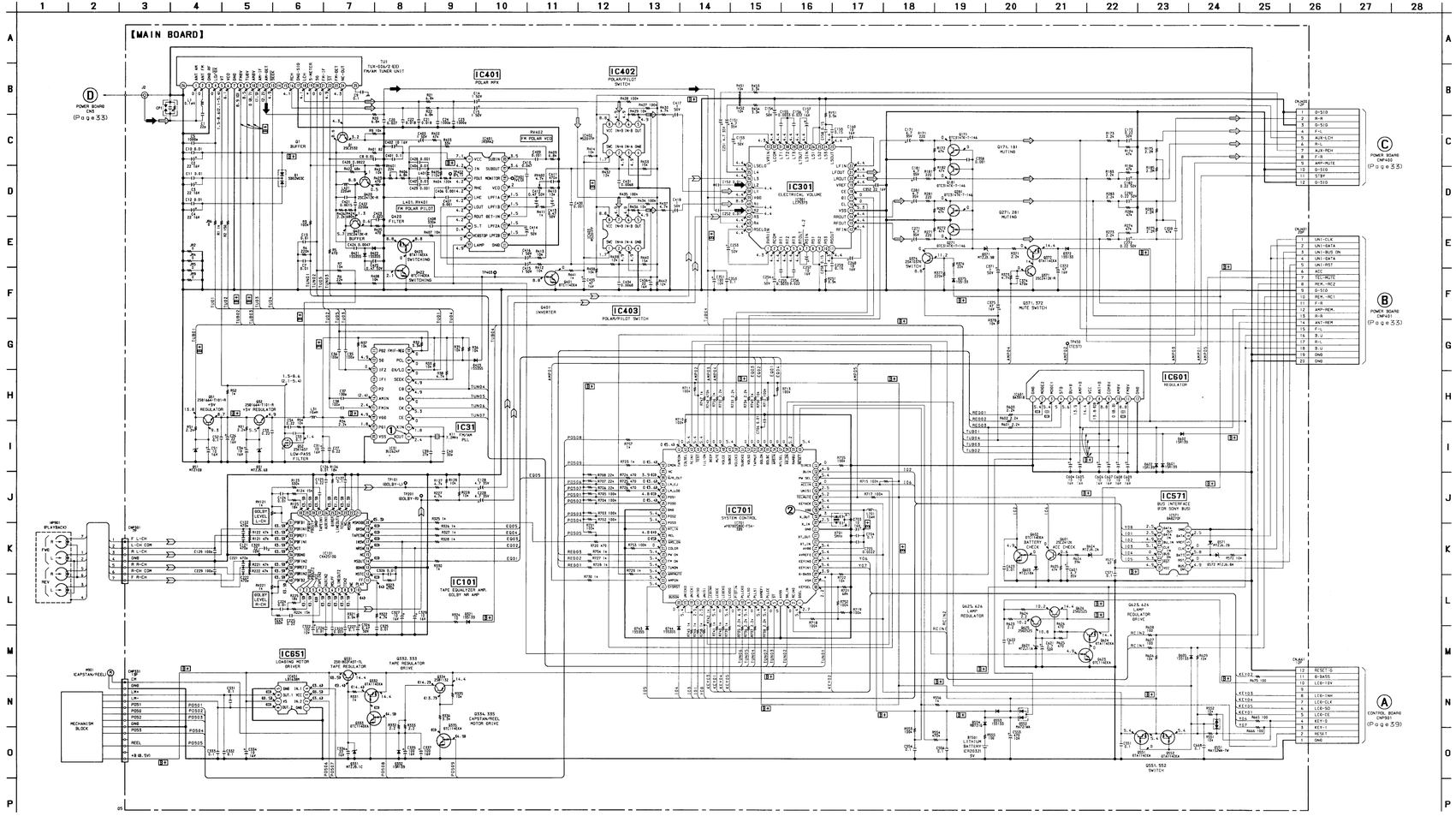
(The other layers' patterns are not indicated.)

Caution:
Pattern face side: (Conductor Side) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side) Parts on the parts face side seen from the parts face are indicated.



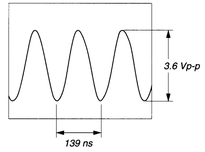




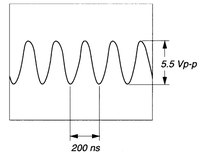


• Waveforms

❶ IC31 ① (X OUT)



❷ IC701 ⑯ (X OUT)



Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- B+ : B+ Line.
- ▬ : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : MW (LW)
  (( )) : TAPE PLAYBACK
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : MW (LW)
  ⇨ : TAPE PLAYBACK

6-4. PRINTED WIRING BOARD – POWER Section –

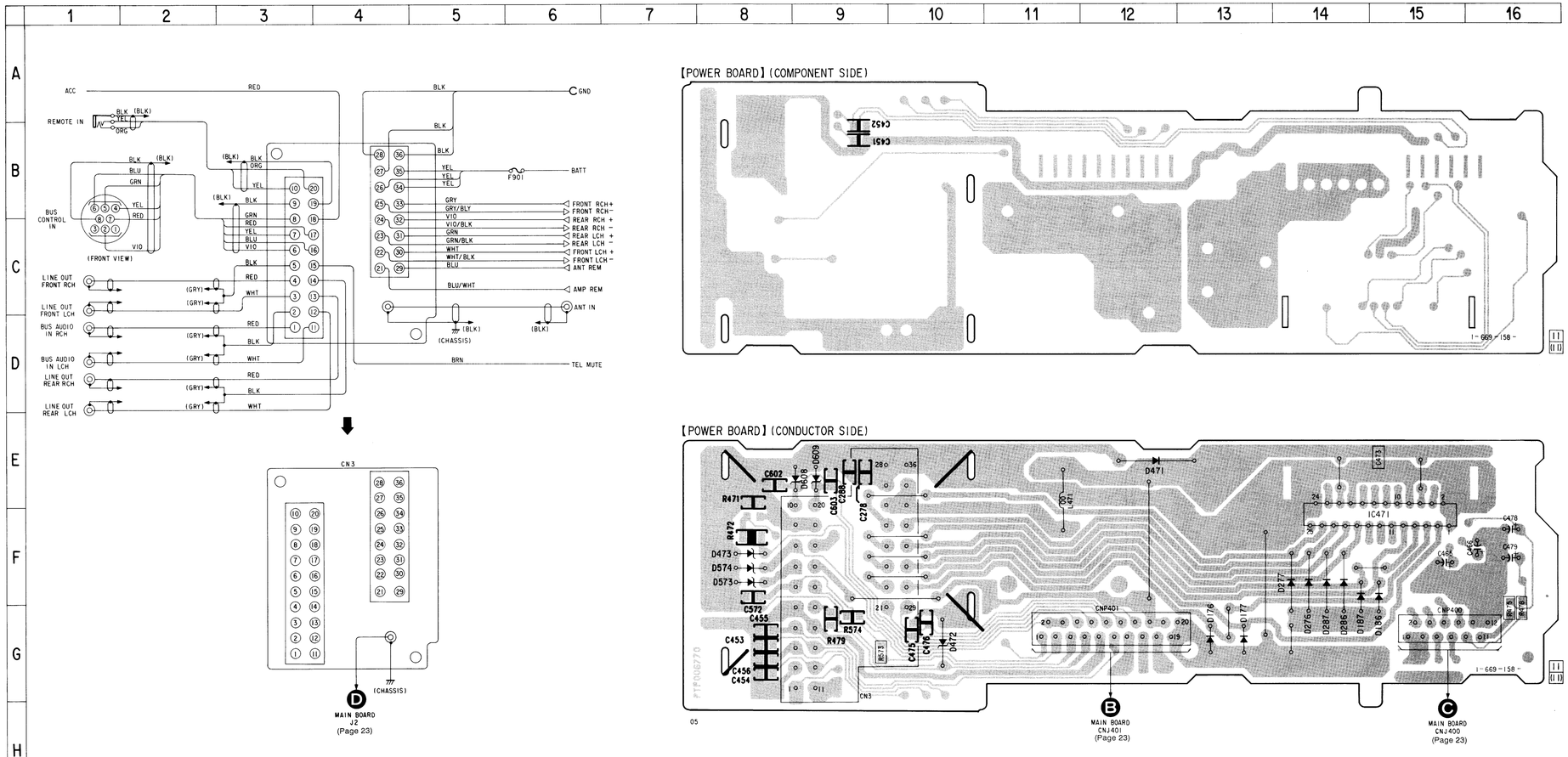
• **Semiconductor Location**

Ref. No.	Location
D176	G-13
D177	G-13
D186	F-15
D187	F-14
D276	F-14
D277	F-14
D286	F-14
D287	F-14
D471	E-12
D472	G-10
D473	F-8
D573	F-8
D574	F-8
D608	E-9
D609	E-9
IC471	F-15

Note on Printed Wiring Board:
- ○—— : parts extracted from the component side.
- ▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

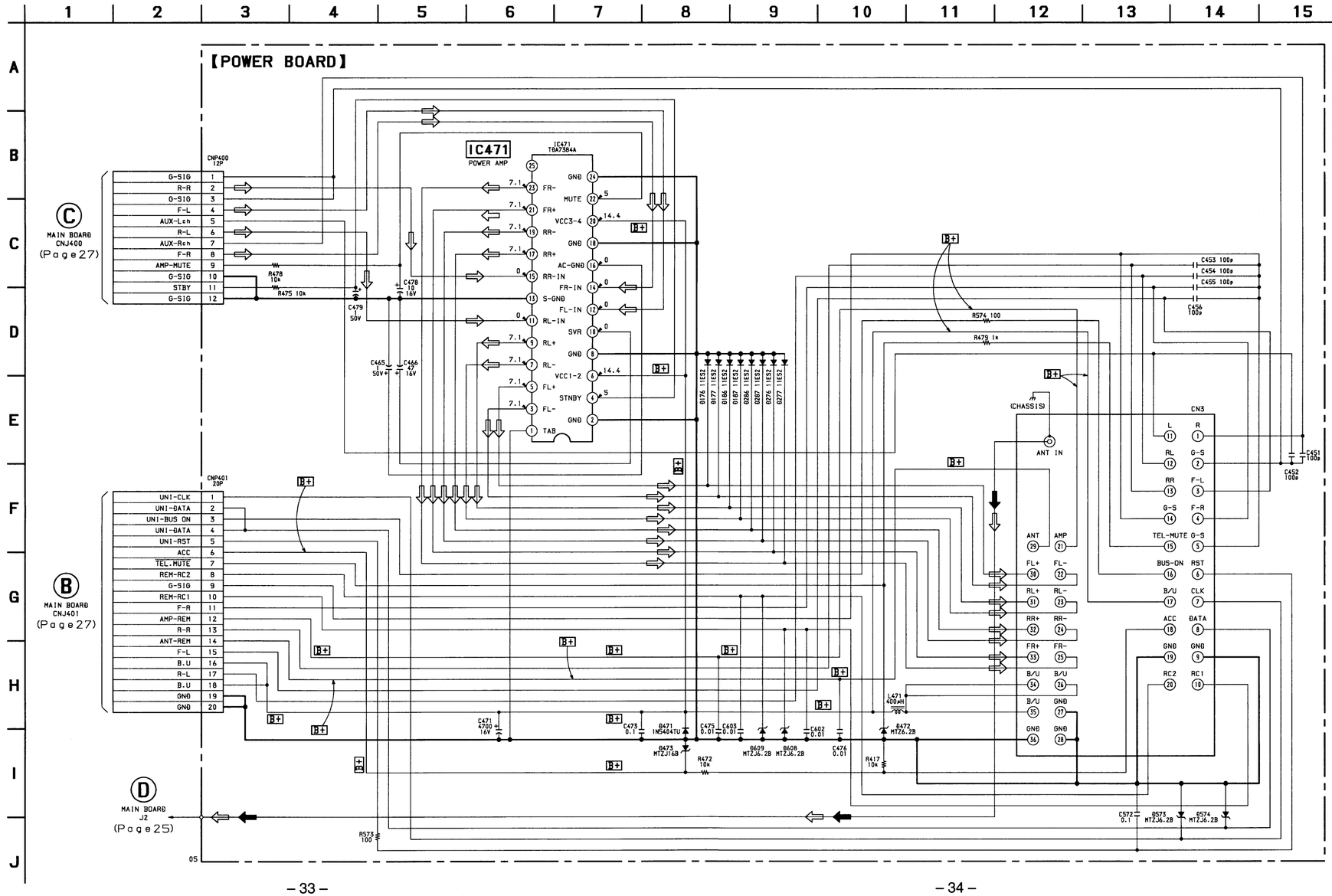
Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.



【POWER BOARD】(COMPONENT SIDE)

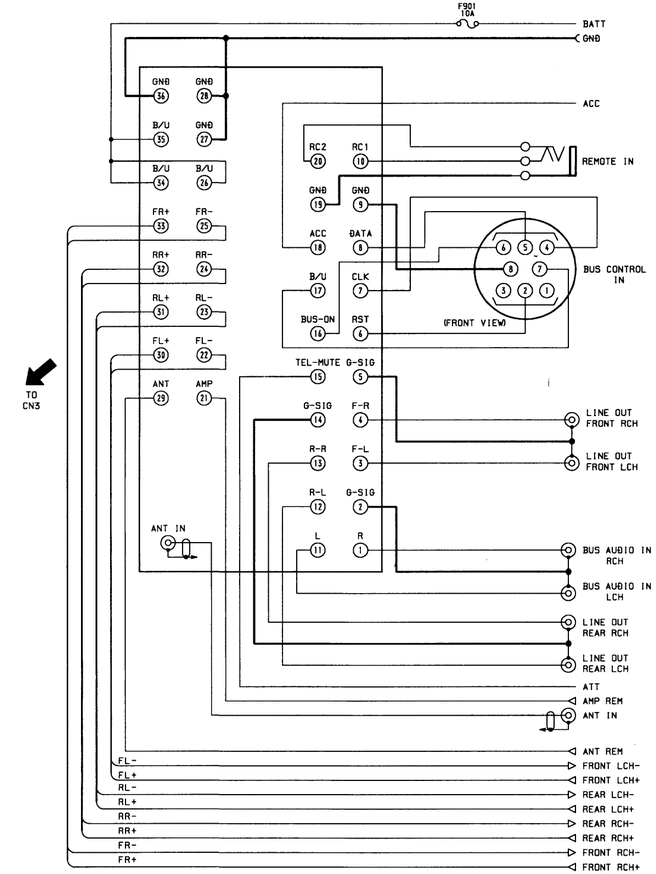
【POWER BOARD】(CONDUCTOR SIDE)

6-5. SCHEMATIC DIAGRAM – POWER Section –



Note on Schematic Diagram:

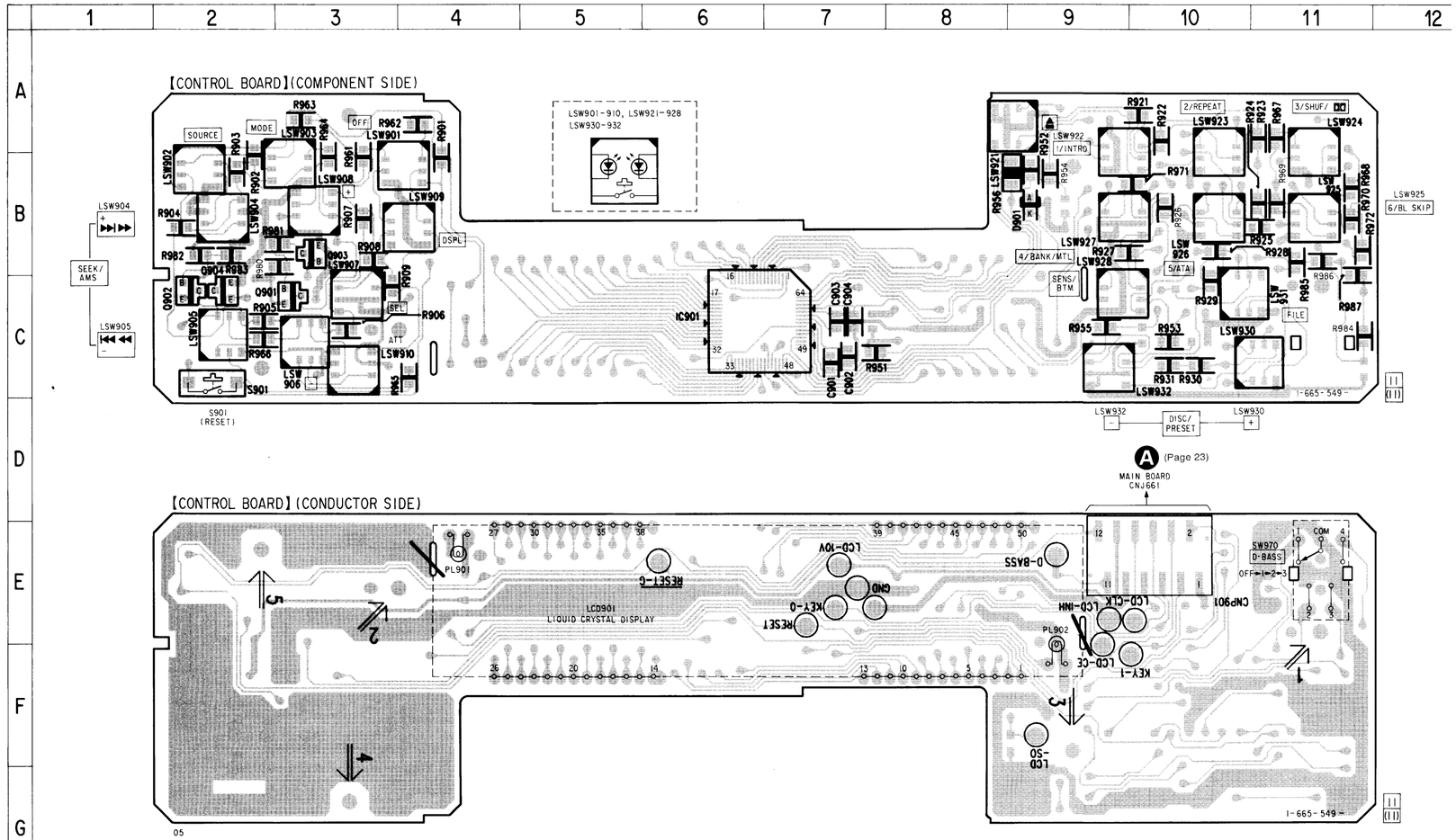
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- B+ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
  ➡ : MW (LW)



6-6. PRINTED WIRING BOARD – PANEL Section –

• **Semiconductor Location**

Ref. No.	Location
D901	B-9
IC901	C-6
Q901	C-3
Q902	C-2
Q903	B-3
Q904	C-2

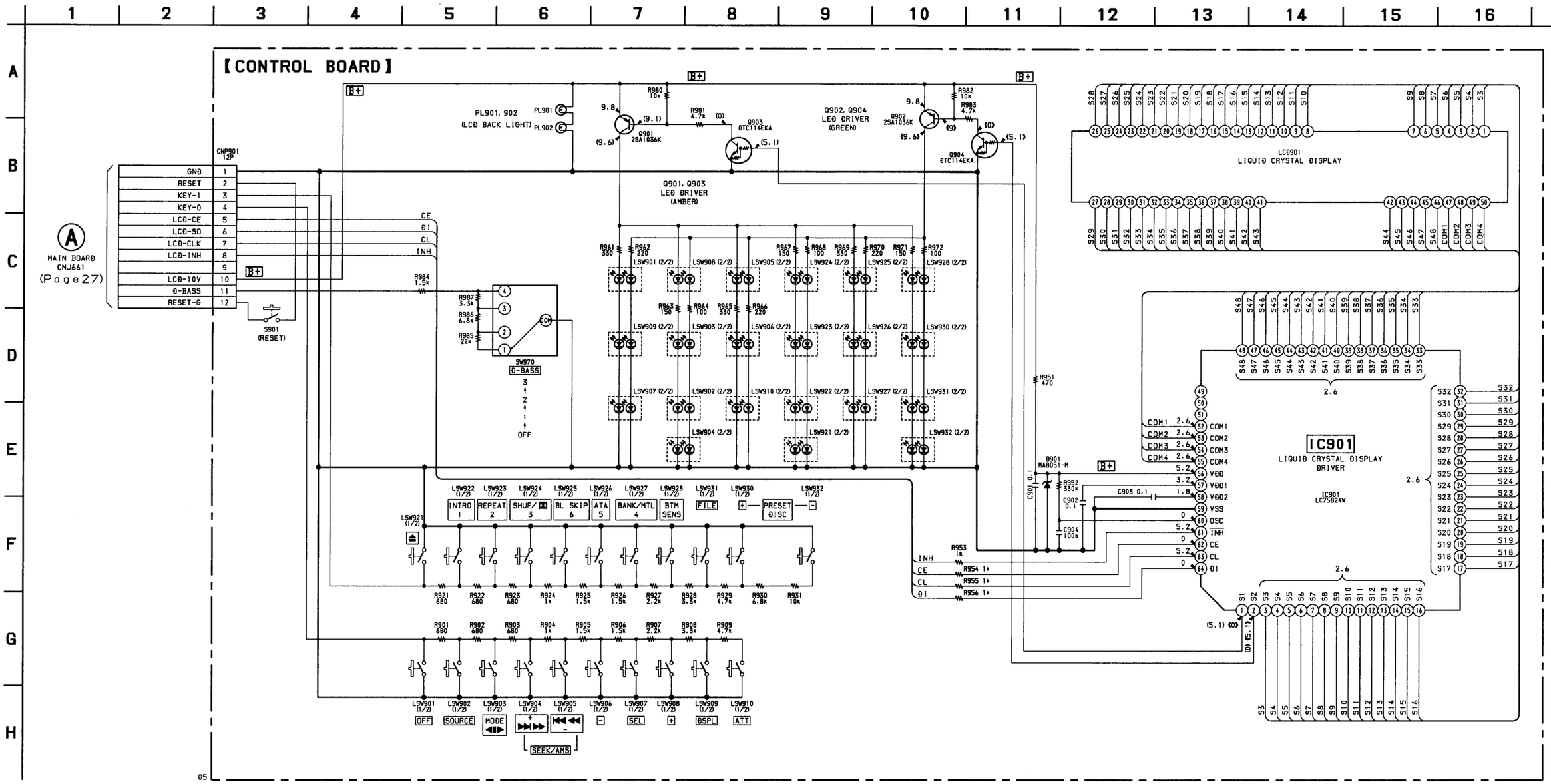


Note on Printed Wiring Board:
- ⟷ : parts extracted from the component side.
- ▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:
Pattern face side: (Conductor Side) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side) Parts on the parts face side seen from the parts face are indicated.

6-7. SCHEMATIC DIAGRAM – PANEL Section –

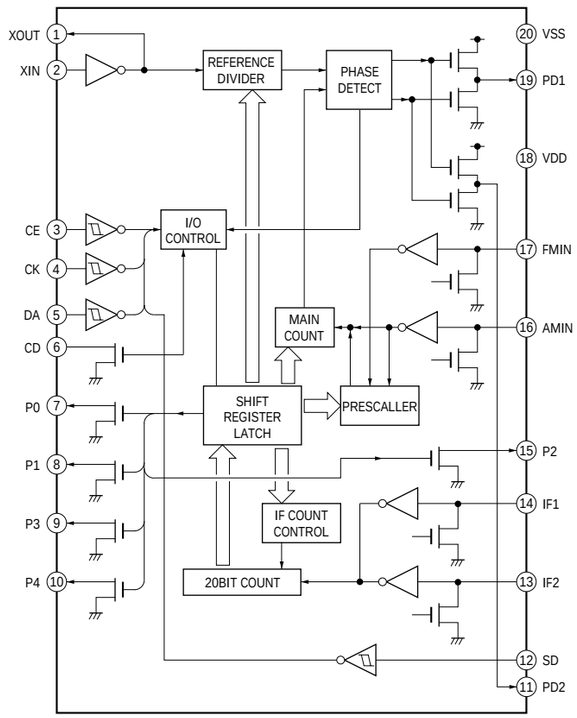


Note on Schematic Diagram:

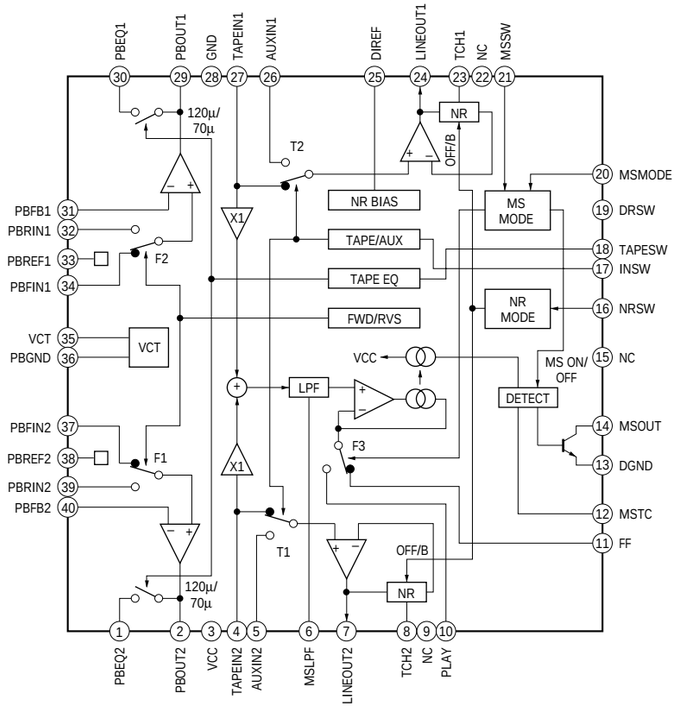
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- B+ : B+ Line.
- ▭ : panel designation.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AMBER
  ⟨⟨ ⟩⟩ :GREEN
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.

• **IC Block Diagrams**

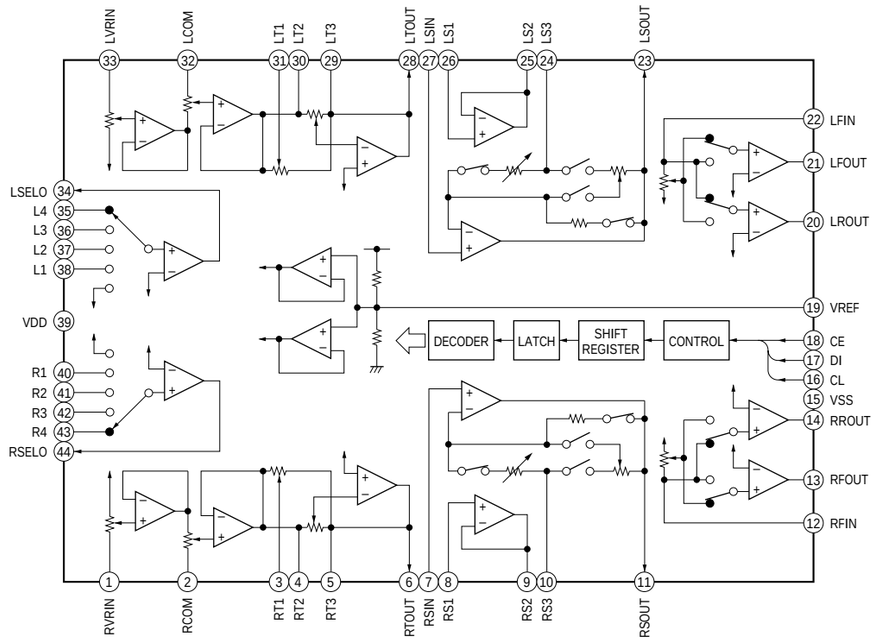
IC31 BU2624F-E2 (MAIN BOARD)



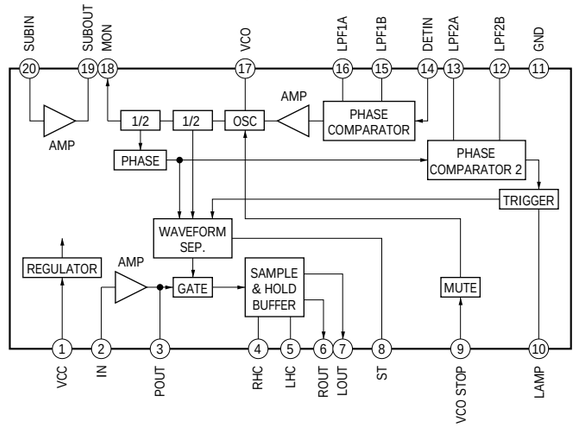
IC101 CXA2510AQ-T4 (MAIN BOARD)



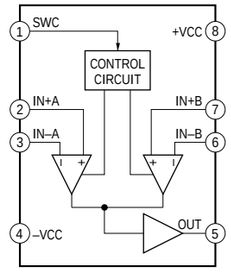
IC301 LC75373ED (MAIN BOARD)



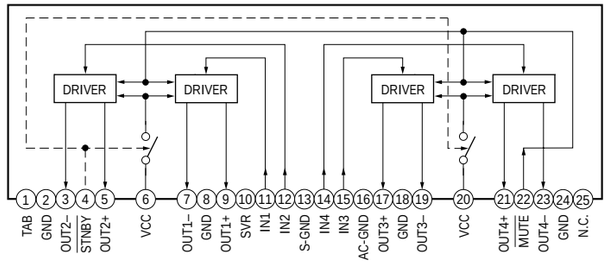
IC401 IR3R42 (MAIN BOARD)



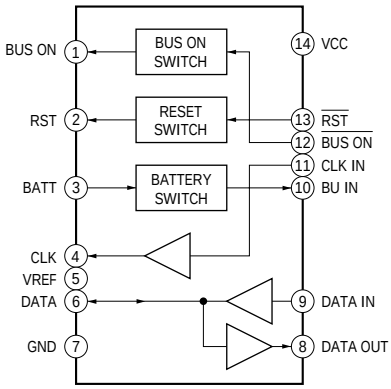
IC402, 403 M5201FP (MAIN BOARD)



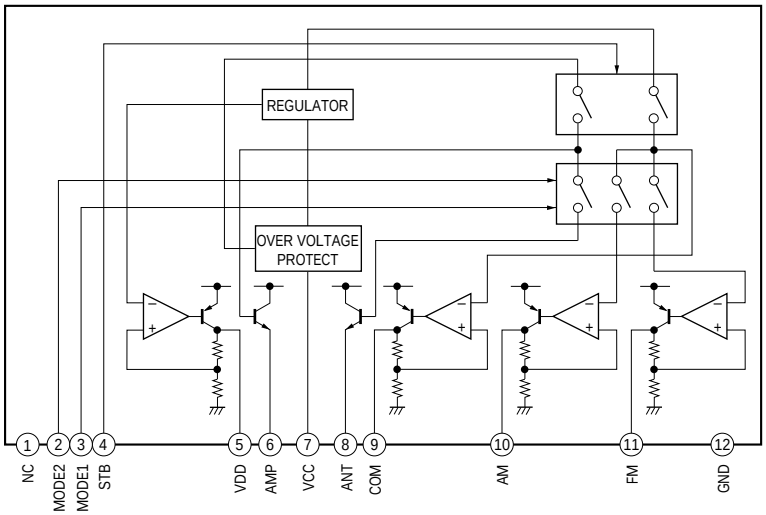
IC471 TDA7384 (POWER BOARD)



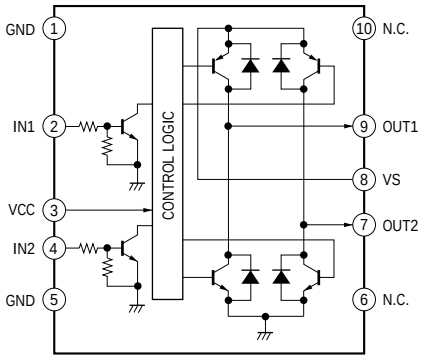
IC571 BA8270F-E2 (MAIN BOARD)



IC601 BA3918-V2 (MAIN BOARD)



IC651 LB1638M (MAIN BOARD)

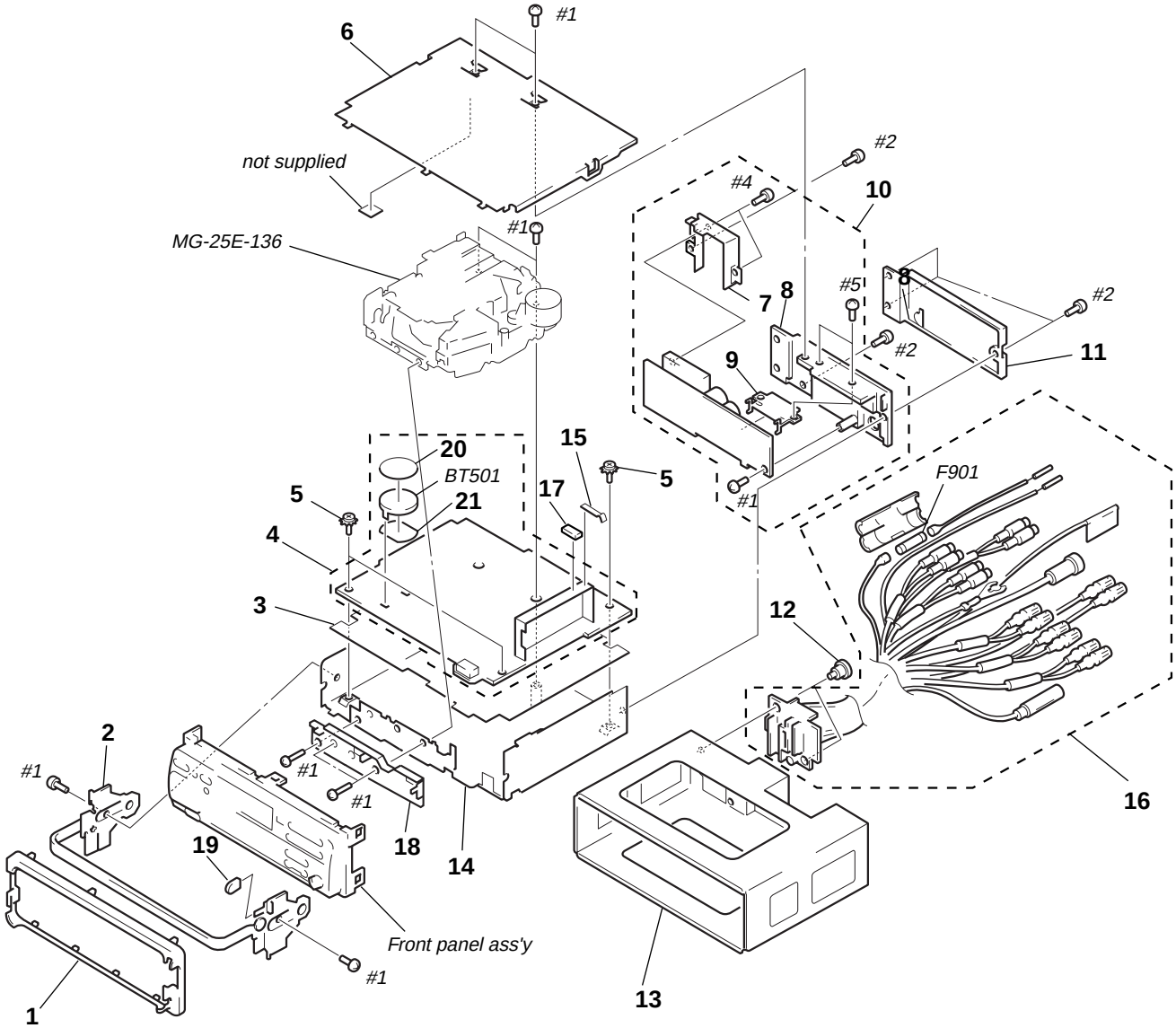


SECTION 7
EXPLODED VIEWS

NOTE:

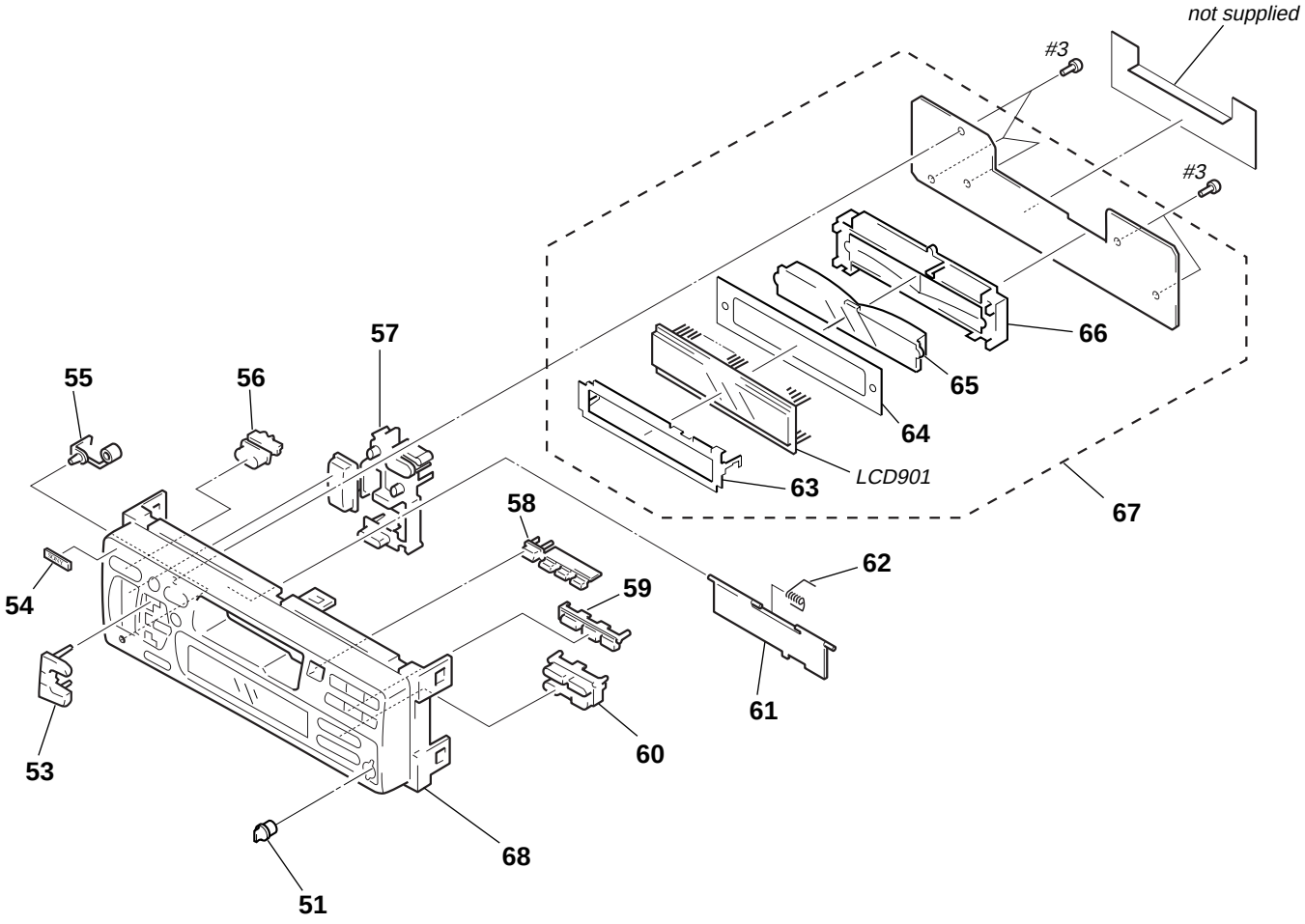
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

(1) CHASSIS SECTION



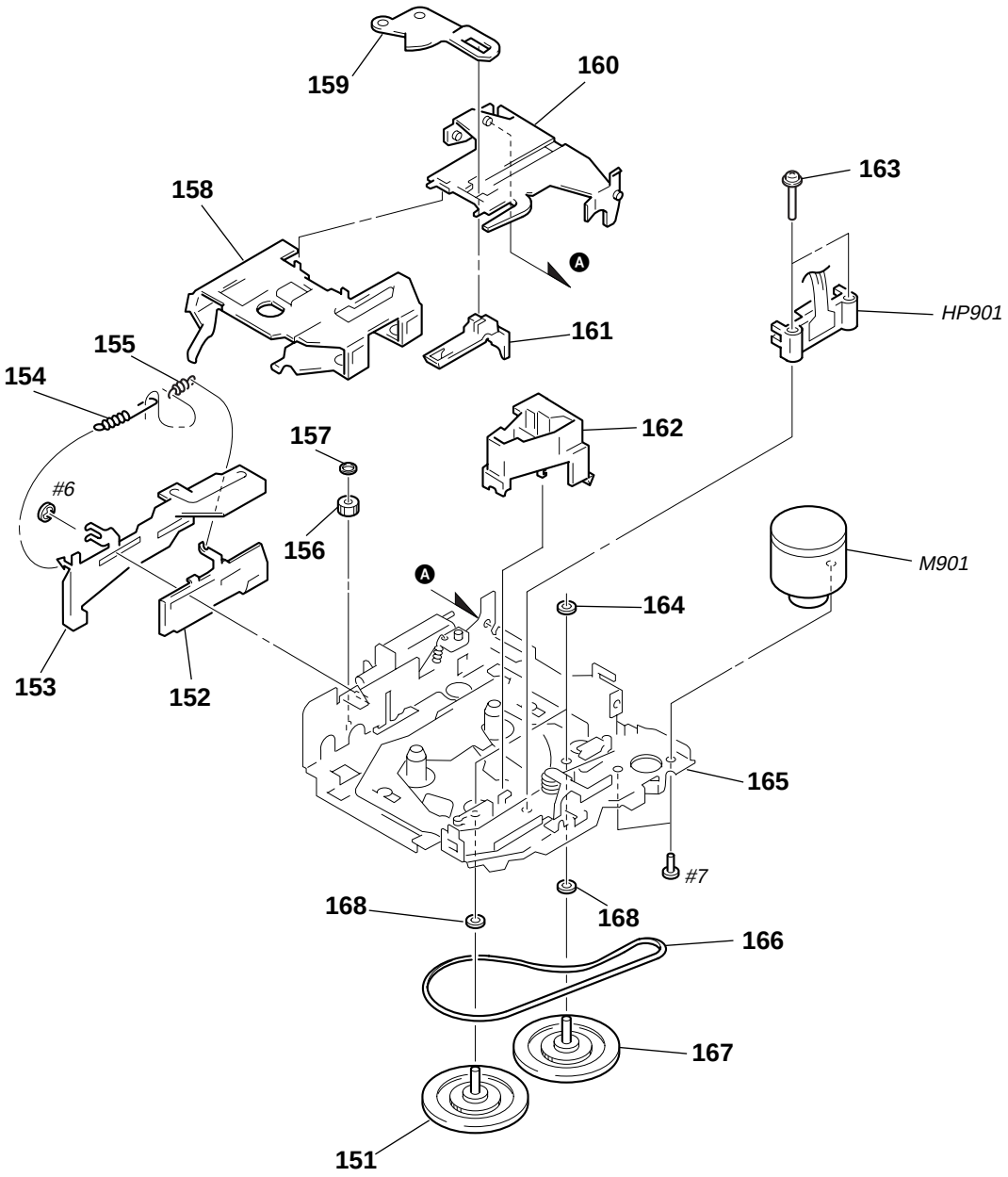
Ref. No.	Part No.	Description	Remark
1	3-012-567-01	COLLAR (A)	
2	X-3372-126-1	HANDLE ASSY	
* 3	3-012-574-01	INSULATOR	
* 4	A-3313-521-A	MAIN BOARD, COMPLETE	
5	3-915-923-01	SCREW, GROUND POINT	
* 6	3-012-565-01	COVER	
* 7	3-012-568-01	BRACKET (CONNECTOR)	
* 8	3-022-201-01	HEAT SINK	
* 9	3-022-214-01	BRACKET (IC)	
* 10	A-3313-523-A	POWER BOARD, COMPLETE	
11	3-012-575-01	PANEL (REAR)	
12	3-340-614-11	SCREW (JACK), STEP	
13	3-012-593-01	BRACKET	
* 14	X-3373-590-1	CHASSIS ASSY	
15	3-012-587-01	PLATE (C), GROUND	
16	1-782-345-11	CORD (WITH CONNECTOR) (POWER)	
17	3-338-263-01	CUSHION (U)	
* 18	3-014-628-01	CHASSIS (FRONT)	
19	3-012-577-01	BUTTON (RELEASE)	
20	3-022-253-01	SHEET, INSULATING (A)	
21	3-022-254-01	SHEET, INSULATING (B)	
BT501	1-528-225-31	BATTERY, LITHIUM	
F901	1-532-677-00	FUSE, GLASS TUBE (10 A)	

(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-018-799-01	BUTTON (D-BASS)	
53	3-016-932-01	BUTTON (L) (2) (+. –)	
54	3-904-194-01	EMBLEM (NO. 2.5), SONY	
55	3-012-576-01	BUTTON (RESET)	
56	3-009-300-01	BUTTON (SOURCE)	
57	3-018-658-01	BUTTON (L) (●. OFF. +. ▶▶I ▶▶. SEEK AMS. I◀◀ ◀◀ –. SEL. ATT)	
58	3-016-933-01	BUTTON (1-3) (⏏. 1. 2. 3)	
59	3-016-931-01	BUTTON (4-6) (4. 5. 6)	
60	3-016-937-01	BUTTON (R) (S) (SENS. FILE. – DISC +)	
61	3-932-205-11	DOOR, CASSETTE	
62	3-935-003-01	SPRING, TORSION	
* 63	3-019-151-01	PLATE (LCD), GROUND	
* 64	3-022-497-01	SHEET (REFLECTOR)	
* 65	3-018-612-01	PLATE, LIGHT GUIDE	
* 66	3-018-611-01	HOLDER (LCD)	
* 67	A-3294-375-A	CONTROL BOARD, COMPLETE	
68	X-3375-266-1	PANEL SUB ASSY	
LCD901	1-801-968-31	DISPLAY PANEL, LIQUID CRYSTAL	

(3) MECHANISM DECK SECTION (MG-25E-136)



Ref. No.	Part No.	Description	Remark
151	A-3291-667-A	CLUTCH (FR) ASSY	
* 152	3-019-130-01	LEVER (LDG-A)	
* 153	3-019-131-01	LEVER (LDG-B)	
154	3-020-539-01	SPRING (LD-1), TENSION	
155	3-020-540-01	SPRING (LD-2), TENSION	
156	3-020-542-01	GEAR (LOADING FT)	
157	3-341-753-11	WASHER, POLYETHYLENE	
158	3-020-533-01	HOUSING	
* 159	3-020-532-01	ARM (SUCTION)	
160	3-020-534-01	HANGER	

Ref. No.	Part No.	Description	Remark
161	3-933-346-01	CATCHER	
162	3-933-344-01	GUIDE (C)	
163	3-014-798-01	SCREW (HEAD), SPECIAL	
164	3-364-151-01	WASHER	
165	X-3375-625-1	CHASSIS (SV) ASSY (D)	
166	3-017-302-01	BELT (25)	
167	3-936-853-01	FLYWHEEL (F)	
168	3-701-437-21	WASHER	
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)	
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	

SECTION 8
ELECTRICAL PARTS LIST

CONTROL

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-3294-375-A	CONTROL BOARD, COMPLETE			
		**********			
*	3-018-611-01	HOLDER (LCD)			
*	3-018-612-01	PLATE, LIGHT GUIDE			
*	3-019-151-01	PLATE (LCD), GROUND			
*	3-022-497-01	SHEET (REFLECTOR)			
		< CAPACITOR >			
C901	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C902	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C903	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C904	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
		< CONNECTOR >			
CN901	1-778-960-21	SOCKET, CONNECTOR 12P			
		< DIODE >			
D901	8-719-420-90	DIODE MA8051-M			
		< IC >			
IC901	8-759-365-90	IC LC75824W			
		< LIQUID CRYSTAL DISPLAY >			
LCD901	1-801-968-31	DISPLAY PANEL, LIQUID CRYSTAL			
		< SWITCH >			
LSW901	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (OFF)			
LSW902	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (SOURCE)			
LSW903	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (MODE ◄II►)			
LSW904	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (+ ►►I ►►, SEEK/AMS)			
LSW905	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (– I◄◄ ◄◄, SEEK/AMS)			
LSW906	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (–)			
LSW907	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (SEL)			
LSW908	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (+)			
LSW909	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (DSPL)			
LSW910	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (ATT)			
LSW921	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (⏏)			
LSW922	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (1/INTRO)			
LSW923	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (2/REPEAT)			
LSW924	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (3/SHUF/□□)			
LSW925	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (6/BL SKIP)			
LSW926	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (5/ATA)			
LSW927	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (4/BANK/MTL)			
LSW928	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (SENS/BTM)			
LSW930	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (+, DISC/PRESET)			
LSW931	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (FILE)			
LSW932	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (–, DISC/PRESET)			
		< PILOT LAMP >			
PL901	1-517-633-21	LAMP, PILOT (LCD BACK LIGHT)			
PL902	1-517-633-21	LAMP, PILOT (LCD BACK LIGHT)			
		< TRANSISTOR >			
Q901	8-729-901-97	TRANSISTOR 2SA1036K-Q			
Q902	8-729-901-97	TRANSISTOR 2SA1036K-Q			
Q903	8-729-900-53	TRANSISTOR DTC114EK			
Q904	8-729-900-53	TRANSISTOR DTC114EK			
		< RESISTOR >			
R901	1-216-045-00	METAL CHIP	680	5%	1/10W
R902	1-216-045-00	METAL CHIP	680	5%	1/10W
R903	1-216-045-00	METAL CHIP	680	5%	1/10W
R904	1-216-049-11	RES, CHIP	1K	5%	1/10W
R905	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R906	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R907	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R908	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R909	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R921	1-216-045-00	METAL CHIP	680	5%	1/10W
R922	1-216-045-00	METAL CHIP	680	5%	1/10W
R923	1-216-045-00	METAL CHIP	680	5%	1/10W
R924	1-216-049-11	RES, CHIP	1K	5%	1/10W
R925	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R926	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R927	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R928	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R929	1-216-065-00	METAL CHIP	4.7K	5%	1/10W

CONTROL MAIN

Ref. No.	Part No.	Description			Remark
R930	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R931	1-216-073-00	METAL CHIP	10K	5%	1/10W
R951	1-216-041-00	METAL CHIP	470	5%	1/10W
R952	1-216-109-00	METAL CHIP	330K	5%	1/10W
R953	1-216-049-11	RES, CHIP	1K	5%	1/10W
R954	1-216-049-11	RES, CHIP	1K	5%	1/10W
R955	1-216-049-11	RES, CHIP	1K	5%	1/10W
R956	1-216-198-00	RES, CHIP	1K	5%	1/8W
R961	1-216-037-00	METAL CHIP	330	5%	1/10W
R962	1-216-033-00	METAL CHIP	220	5%	1/10W
R963	1-216-029-00	METAL CHIP	150	5%	1/10W
R964	1-216-025-00	RES, CHIP	100	5%	1/10W
R965	1-216-037-00	METAL CHIP	330	5%	1/10W
R966	1-216-033-00	METAL CHIP	220	5%	1/10W
R967	1-216-029-00	METAL CHIP	150	5%	1/10W
R968	1-216-025-00	RES, CHIP	100	5%	1/10W
R969	1-216-037-00	METAL CHIP	330	5%	1/10W
R970	1-216-033-00	METAL CHIP	220	5%	1/10W
R971	1-216-029-00	METAL CHIP	150	5%	1/10W
R972	1-216-025-00	RES, CHIP	100	5%	1/10W
R980	1-216-073-00	METAL CHIP	10K	5%	1/10W
R981	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R982	1-216-073-00	METAL CHIP	10K	5%	1/10W
R983	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R984	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R985	1-216-081-00	METAL CHIP	22K	5%	1/10W
R986	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R987	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
		< SWITCH >			
S901	1-692-431-21	SWITCH, TACTILE (RESET)			
SW970	1-762-937-11	SWITCH, ROTARY (D-BASS)			
**********					
*	A-3313-521-A	MAIN BOARD, COMPLETE			
		**********			
	3-022-253-01	SHEET, INSULATING (A)			
	3-022-254-01	SHEET, INSULATING (B)			
		< BATTERY >			
BT501	1-528-225-31	BATTERY, LITHIUM			
		< CAPACITOR >			
C1	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C2	1-124-234-00	ELECT	22uF	20%	16V
C3	1-124-234-00	ELECT	22uF	20%	16V
C4	1-124-234-00	ELECT	22uF	20%	16V
C5	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C7	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C8	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C9	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C10	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C11	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C12	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C13	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C14	1-126-160-11	ELECT	1uF	20%	50V
C15	1-126-160-11	ELECT	1uF	20%	50V

Ref. No.	Part No.	Description			Remark
C20	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V
C21	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C22	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C23	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C24	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C26	1-124-234-00	ELECT	22uF	20%	16V
C27	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C31	1-126-157-11	ELECT	10uF	20%	16V
C33	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C34	1-126-157-11	ELECT	10uF	20%	16V
C35	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C36	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C37	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C38	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C39	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C40	1-163-104-00	CERAMIC CHIP	30PF	5%	50V
C51	1-126-157-11	ELECT	10uF	20%	16V
C52	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C53	1-136-165-00	FILM	0.1uF	5%	50V
C54	1-136-169-00	FILM	0.22uF	5%	50V
C121	1-130-469-00	MYLAR	680PF	5%	50V
C122	1-130-469-00	MYLAR	680PF	5%	50V
C124	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C125	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C126	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C127	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C128	1-126-163-11	ELECT	4.7uF	20%	50V
C129	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C151	1-126-163-11	ELECT	4.7uF	20%	50V
C152	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C153	1-126-160-11	ELECT	1uF	20%	50V
C154	1-126-160-11	ELECT	1uF	20%	50V
C155	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C156	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C157	1-126-157-11	ELECT	10uF	20%	16V
C158	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C159	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C160	1-126-157-11	ELECT	10uF	20%	16V
C171	1-126-163-11	ELECT	4.7uF	20%	50V
C172	1-124-464-11	ELECT	0.22uF	20%	50V
C181	1-126-163-11	ELECT	4.7uF	20%	50V
C182	1-124-464-11	ELECT	0.22uF	20%	50V
C221	1-130-469-00	MYLAR	680PF	5%	50V
C222	1-130-469-00	MYLAR	680PF	5%	50V
C224	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C225	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C226	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C227	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C228	1-126-163-11	ELECT	4.7uF	20%	50V
C229	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C251	1-126-163-11	ELECT	4.7uF	20%	50V
C252	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C253	1-126-160-11	ELECT	1uF	20%	50V
C254	1-126-160-11	ELECT	1uF	20%	50V
C255	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C256	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C257	1-126-157-11	ELECT	10uF	20%	16V

Ref. No.	Part No.	Description			Remark
C258	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C259	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C260	1-126-157-11	ELECT	10uF	20%	16V
C271	1-126-163-11	ELECT	4.7uF	20%	50V
C272	1-124-464-11	ELECT	0.22uF	20%	50V
C281	1-126-163-11	ELECT	4.7uF	20%	50V
C282	1-124-464-11	ELECT	0.22uF	20%	50V
C320	1-124-234-00	ELECT	22uF	20%	16V
C322	1-124-584-00	ELECT	100uF	20%	10V
C323	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C324	1-126-159-11	ELECT	0.47uF	20%	50V
C325	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C326	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C327	1-126-157-11	ELECT	10uF	20%	16V
C329	1-126-157-11	ELECT	10uF	20%	16V
C331	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C332	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C333	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C334	1-126-157-11	ELECT	10uF	20%	16V
C335	1-115-175-11	ELECT	100uF	20%	16V
C336	1-124-234-00	ELECT	22uF	20%	16V
C337	1-115-175-11	ELECT	100uF	20%	16V
C351	1-124-584-00	ELECT	100uF	20%	10V
C352	1-124-234-00	ELECT	22uF	20%	16V
C353	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C358	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V
C359	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C371	1-126-160-11	ELECT	1uF	20%	50V
C372	1-124-589-11	ELECT	47uF	20%	16V
C374	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C375	1-124-589-11	ELECT	47uF	20%	16V
C401	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C402	1-126-157-11	ELECT	10uF	20%	16V
C403	1-126-160-11	ELECT	1uF	20%	50V
C404	1-137-522-11	FILM	0.01uF	5%	50V
C405	1-137-150-11	FILM	0.01uF	5%	100V
C406	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C407	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C408	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C409	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C410	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C411	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C412	1-126-159-11	ELECT	0.47uF	20%	50V
C413	1-126-159-11	ELECT	0.47uF	20%	50V
C414	1-126-160-11	ELECT	1uF	20%	50V
C415	1-126-160-11	ELECT	1uF	20%	50V
C416	1-126-160-11	ELECT	1uF	20%	50V
C417	1-126-160-11	ELECT	1uF	20%	50V
C418	1-126-160-11	ELECT	1uF	20%	50V
C420	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C421	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C422	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C423	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C424	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C425	1-126-159-11	ELECT	0.47uF	20%	50V
C428	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C429	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C430	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C431	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C434	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C435	1-124-589-11	ELECT	47uF	20%	16V
C436	1-124-234-00	ELECT	22uF	20%	16V
C551	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C553	1-126-925-11	ELECT	470uF	20%	10V
C554	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C556	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C571	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C601	1-126-163-11	ELECT	4.7uF	20%	50V
C604	1-126-157-11	ELECT	10uF	20%	16V
C605	1-126-157-11	ELECT	10uF	20%	16V
C606	1-126-157-11	ELECT	10uF	20%	16V
C607	1-126-157-11	ELECT	10uF	20%	16V
C608	1-126-157-11	ELECT	10uF	20%	16V
C609	1-126-157-11	ELECT	10uF	20%	16V
C621	1-124-257-00	ELECT	2.2uF	20%	50V
C622	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C623	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C668	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C703	1-126-157-11	ELECT	10uF	20%	16V
C704	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C705	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C706	1-164-232-11	CERAMIC CHIP	0.01uF		50V

< CONNECTOR >

CNJ400	1-770-382-11	CONNECTOR, BOARD TO BOARD 12P	
CNJ401	1-770-386-11	CONNECTOR, BOARD TO BOARD 20P	
CNJ661	1-770-407-11	CONNECTOR, BOARD TO BOARD 12P	
CNP301	1-766-260-11	CONNECTOR, FFC/FPC (ZIF) 7P	
* CNP331	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P	

< COMPOSITION CIRCUIT BLOCK >

CP1	1-519-504-11	GAP, DISCHARGE

< DIODE >

D1	8-719-991-65	DIODE SB02W03C
D31	8-719-109-89	DIODE RD5.6ESB2
D51	8-719-110-17	DIODE RD10ESB2
D321	8-719-991-33	DIODE 1SS133T-77
D331	8-719-110-14	DIODE RD9.1ES-B3
D332	8-719-970-02	DIODE 1SR139-400
D371	8-719-109-72	DIODE RD3.9ES-B2
D372	8-719-991-33	DIODE 1SS133T-77
D375	8-719-991-33	DIODE 1SS133T-77
D421	8-719-988-62	DIODE 1SS355
D422	8-719-988-62	DIODE 1SS355
D423	8-719-988-62	DIODE 1SS355
D551	8-719-400-20	DIODE MA152WA
D552	8-719-041-79	DIODE MA721WA-TX
D553	8-719-991-33	DIODE 1SS133T-77
D554	8-719-049-26	DIODE RB721Q
D571	8-719-109-93	DIODE RD6.2ESB2
D572	8-719-109-97	DIODE RD6.8ES-B2
D600	8-719-970-02	DIODE 1SR139-400
D601	8-719-970-02	DIODE 1SR139-400
D602	8-719-970-02	DIODE 1SR139-400

MAIN

Ref. No.	Part No.	Description	Remark
D603	8-719-110-49	DIODE RD18ES-B2	
D604	8-719-110-06	DIODE RD8.2ESB1	
D605	8-719-991-33	DIODE 1SS133T-77	
D621	8-719-923-74	DIODE MTZJ-T-77-11A	
D743	8-719-988-62	DIODE 1SS355	
D744	8-719-988-62	DIODE 1SS355	
		< IC >	
IC31	8-759-448-84	IC BU2624F-E2	
IC101	8-752-079-79	IC CXA2510AQ-T4	
IC301	8-759-443-67	IC LC75373ED	
IC401	8-759-063-04	IC IR3R42	
IC402	8-759-603-27	IC M5201FP	
IC403	8-759-603-27	IC M5201FP	
IC571	8-759-449-89	IC BA8270F-E2	
IC601	8-759-347-49	IC BA3918-V2	
IC651	8-759-823-87	IC LB1638M	
IC701	8-759-522-60	IC uPD78058GC-F54-3B9	
		< SHORT >	
JR2	1-216-295-11	SHORT 0	
JR4	1-216-295-11	SHORT 0	
JR5	1-216-295-11	SHORT 0	
JR6	1-216-295-11	SHORT 0	
JR9	1-216-296-11	SHORT 0	
		< COIL >	
L1	1-410-180-51	INDUCTOR CHIP 0.1uH	
L31	1-410-509-11	INDUCTOR 10uH	
L401	1-411-999-11	COIL (VCO)	
L421	1-410-336-11	INDUCTOR 220uH	
L701	1-410-509-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q1	8-729-209-41	TRANSISTOR 2SC2532-TE85L	
Q32	8-729-106-68	TRANSISTOR 2SD1615A-GP	
Q51	8-729-106-68	TRANSISTOR 2SD1615A-GP	
Q52	8-729-021-94	TRANSISTOR 2SK1657-T1B	
Q171	8-729-920-21	TRANSISTOR DTC314TKH04	
Q181	8-729-920-21	TRANSISTOR DTC314TKH04	
Q271	8-729-920-21	TRANSISTOR DTC314TKH04	
Q281	8-729-920-21	TRANSISTOR DTC314TKH04	
Q331	8-729-015-11	TRANSISTOR 2SD1802FAST-TL	
Q332	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q333	8-729-900-53	TRANSISTOR DTC114EK	
Q334	8-729-106-60	TRANSISTOR 2SB1115A	
Q335	8-729-900-53	TRANSISTOR DTC114EK	
Q371	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q372	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q374	8-729-216-22	TRANSISTOR 2SA1162-G	
Q401	8-729-900-53	TRANSISTOR DTC114EK	
Q420	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q421	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q422	8-729-900-53	TRANSISTOR DTC114EK	
Q423	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q551	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q552	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q601	8-729-620-06	TRANSISTOR 2SC3052-EF	

Ref. No.	Part No.	Description	Remark
Q602	8-729-900-53	TRANSISTOR DTC114EK	
Q623	8-729-900-53	TRANSISTOR DTC114EK	
Q624	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q625	8-729-026-68	TRANSISTOR 2SD2525(TP)	
Q626	8-729-026-68	TRANSISTOR 2SD2525(TP)	
		< RESISTOR >	
R1	1-216-049-11	RES, CHIP 1K 5% 1/10W	
R2	1-216-029-00	METAL CHIP 150 5% 1/10W	
R3	1-216-097-00	RES, CHIP 100K 5% 1/10W	
R4	1-216-105-00	RES, CHIP 220K 5% 1/10W	
R5	1-216-041-00	METAL CHIP 470 5% 1/10W	
R6	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R7	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R9	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R20	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R21	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R22	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R31	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R32	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R33	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R34	1-216-206-00	RES, CHIP 2.2K 5% 1/8W	
R35	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R36	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R37	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R38	1-216-214-00	RES, CHIP 4.7K 5% 1/8W	
R51	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R52	1-216-049-11	RES, CHIP 1K 5% 1/10W	
R54	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R121	1-216-089-00	RES, CHIP 47K 5% 1/10W	
R122	1-216-089-00	RES, CHIP 47K 5% 1/10W	
R123	1-216-109-00	METAL CHIP 330K 5% 1/10W	
R124	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R125	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R126	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R127	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R128	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R151	1-216-063-00	RES, CHIP 3.9K 5% 1/10W	
R171	1-216-033-00	METAL CHIP 220 5% 1/10W	
R172	1-216-089-00	RES, CHIP 47K 5% 1/10W	
R173	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R174	1-216-089-00	RES, CHIP 47K 5% 1/10W	
R175	1-216-278-11	RES, CHIP 2.2M 5% 1/8W	
R181	1-216-033-00	METAL CHIP 220 5% 1/10W	
R182	1-216-089-00	RES, CHIP 47K 5% 1/10W	
R183	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R184	1-216-089-00	RES, CHIP 47K 5% 1/10W	
R185	1-216-278-11	RES, CHIP 2.2M 5% 1/8W	
R221	1-216-089-00	RES, CHIP 47K 5% 1/10W	
R222	1-216-089-00	RES, CHIP 47K 5% 1/10W	
R223	1-216-109-00	METAL CHIP 330K 5% 1/10W	
R224	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R225	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R227	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R228	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R251	1-216-063-00	RES, CHIP 3.9K 5% 1/10W	
R271	1-216-033-00	METAL CHIP 220 5% 1/10W	

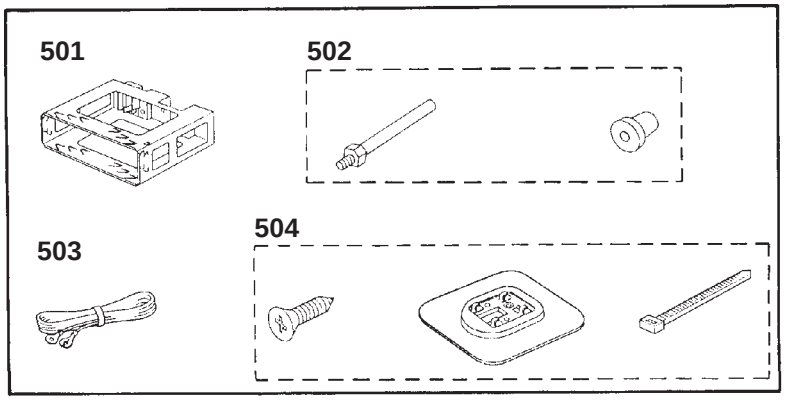
Ref. No.	Part No.	Description			Remark
R272	1-216-089-00	RES, CHIP	47K	5%	1/10W
R273	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R274	1-216-089-00	RES, CHIP	47K	5%	1/10W
R275	1-216-278-11	RES, CHIP	2.2M	5%	1/8W
R281	1-216-033-00	METAL CHIP	220	5%	1/10W
R282	1-216-089-00	RES, CHIP	47K	5%	1/10W
R283	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R284	1-216-089-00	RES, CHIP	47K	5%	1/10W
R285	1-216-278-11	RES, CHIP	2.2M	5%	1/8W
R321	1-216-063-00	RES, CHIP	3.9K	5%	1/10W
R322	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R323	1-216-113-00	METAL CHIP	470K	5%	1/10W
R324	1-216-001-00	METAL CHIP	10	5%	1/10W
R325	1-216-049-11	RES, CHIP	1K	5%	1/10W
R326	1-216-049-11	RES, CHIP	1K	5%	1/10W
R327	1-216-049-11	RES, CHIP	1K	5%	1/10W
R328	1-216-049-11	RES, CHIP	1K	5%	1/10W
R330	1-216-049-11	RES, CHIP	1K	5%	1/10W
R331	1-216-049-11	RES, CHIP	1K	5%	1/10W
R332	1-249-385-11	CARBON	2.2	5%	1/6W
R333	1-249-385-11	CARBON	2.2	5%	1/6W
R335	1-216-073-00	METAL CHIP	10K	5%	1/10W
R336	1-216-210-00	RES, CHIP	3.3K	5%	1/8W
R371	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R373	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R376	1-216-081-00	METAL CHIP	22K	5%	1/10W
R377	1-216-105-00	RES, CHIP	220K	5%	1/10W
R378	1-216-073-00	METAL CHIP	10K	5%	1/10W
R401	1-216-172-00	METAL CHIP	82	5%	1/8W
R402	1-216-238-00	RES, CHIP	47K	5%	1/8W
R403	1-216-085-00	METAL CHIP	33K	5%	1/10W
R404	1-216-099-00	METAL CHIP	120K	5%	1/10W
R405	1-216-098-00	METAL CHIP	110K	5%	1/10W
R406	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R407	1-216-073-00	METAL CHIP	10K	5%	1/10W
R408	1-216-073-00	METAL CHIP	10K	5%	1/10W
R409	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R410	1-216-076-00	METAL CHIP	13K	5%	1/10W
R411	1-216-049-11	RES, CHIP	1K	5%	1/10W
R412	1-216-073-00	METAL CHIP	10K	5%	1/10W
R413	1-216-073-00	METAL CHIP	10K	5%	1/10W
R414	1-216-073-00	METAL CHIP	10K	5%	1/10W
R421	1-216-073-00	METAL CHIP	10K	5%	1/10W
R422	1-216-093-00	METAL CHIP	68K	5%	1/10W
R423	1-216-041-00	METAL CHIP	470	5%	1/10W
R424	1-216-117-00	METAL CHIP	680K	5%	1/10W
R425	1-216-041-00	METAL CHIP	470	5%	1/10W
R426	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R427	1-216-097-00	RES, CHIP	100K	5%	1/10W
R428	1-216-097-00	RES, CHIP	100K	5%	1/10W
R429	1-216-073-00	METAL CHIP	10K	5%	1/10W
R430	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R432	1-216-075-00	METAL CHIP	12K	5%	1/10W
R433	1-216-077-00	METAL CHIP	15K	5%	1/10W
R434	1-216-097-00	RES, CHIP	100K	5%	1/10W
R435	1-216-097-00	RES, CHIP	100K	5%	1/10W
R436	1-216-073-00	METAL CHIP	10K	5%	1/10W
R437	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R438	1-216-073-00	METAL CHIP	10K	5%	1/10W
R439	1-216-075-00	METAL CHIP	12K	5%	1/10W
R440	1-216-077-00	METAL CHIP	15K	5%	1/10W
R441	1-216-049-11	RES, CHIP	1K	5%	1/10W
R442	1-216-075-00	METAL CHIP	12K	5%	1/10W
R451	1-216-073-00	METAL CHIP	10K	5%	1/10W
R452	1-216-073-00	METAL CHIP	10K	5%	1/10W
R453	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R454	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R551	1-208-806-11	RES, CHIP	10K	0.5%	1/10W
R552	1-208-806-11	RES, CHIP	10K	0.5%	1/10W
R553	1-216-097-00	RES, CHIP	100K	5%	1/10W
R554	1-216-113-00	METAL CHIP	470K	5%	1/10W
R555	1-216-174-00	RES, CHIP	100	5%	1/8W
R556	1-216-049-11	RES, CHIP	1K	5%	1/10W
R571	1-249-401-11	CARBON	47	5%	1/4W
R572	1-216-073-00	METAL CHIP	10K	5%	1/10W
R601	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R602	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R603	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R604	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R605	1-216-089-00	RES, CHIP	47K	5%	1/10W
R606	1-216-073-00	METAL CHIP	10K	5%	1/10W
R607	1-216-025-00	RES, CHIP	100	5%	1/10W
R608	1-216-025-00	RES, CHIP	100	5%	1/10W
R609	1-208-806-11	RES, CHIP	10K	0.5%	1/10W
R623	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R624	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R625	1-216-041-00	METAL CHIP	470	5%	1/10W
R626	1-216-041-00	METAL CHIP	470	5%	1/10W
R665	1-216-025-00	RES, CHIP	100	5%	1/10W
R666	1-216-025-00	RES, CHIP	100	5%	1/10W
R675	1-216-025-00	RES, CHIP	100	5%	1/10W
R701	1-216-097-00	RES, CHIP	100K	5%	1/10W
R702	1-216-097-00	RES, CHIP	100K	5%	1/10W
R703	1-216-097-00	RES, CHIP	100K	5%	1/10W
R704	1-216-097-00	RES, CHIP	100K	5%	1/10W
R705	1-216-097-00	RES, CHIP	100K	5%	1/10W
R706	1-216-081-00	METAL CHIP	22K	5%	1/10W
R707	1-216-081-00	METAL CHIP	22K	5%	1/10W
R708	1-216-081-00	METAL CHIP	22K	5%	1/10W
R710	1-216-097-00	RES, CHIP	100K	5%	1/10W
R711	1-216-097-00	RES, CHIP	100K	5%	1/10W
R712	1-216-097-00	RES, CHIP	100K	5%	1/10W
R713	1-216-097-00	RES, CHIP	100K	5%	1/10W
R715	1-216-097-00	RES, CHIP	100K	5%	1/10W
R717	1-216-097-00	RES, CHIP	100K	5%	1/10W
R718	1-216-097-00	RES, CHIP	100K	5%	1/10W
R719	1-216-097-00	RES, CHIP	100K	5%	1/10W
R720	1-216-041-00	METAL CHIP	470	5%	1/10W
R721	1-216-093-00	METAL CHIP	68K	5%	1/10W
R722	1-216-222-00	RES, CHIP	10K	5%	1/8W
R723	1-216-049-11	RES, CHIP	1K	5%	1/10W
R724	1-216-041-00	METAL CHIP	470	5%	1/10W
R725	1-216-041-00	METAL CHIP	470	5%	1/10W
R726	1-216-041-00	METAL CHIP	470	5%	1/10W
R727	1-216-049-11	RES, CHIP	1K	5%	1/10W

MAIN POWER

Ref. No.	Part No.	Description			Remark
R728	1-216-049-11	RES, CHIP	1K	5%	1/10W
R729	1-216-049-11	RES, CHIP	1K	5%	1/10W
R730	1-216-049-11	RES, CHIP	1K	5%	1/10W
R732	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R733	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R734	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R735	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R736	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R737	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R738	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R739	1-216-049-11	RES, CHIP	1K	5%	1/10W
R740	1-216-049-11	RES, CHIP	1K	5%	1/10W
R741	1-216-049-11	RES, CHIP	1K	5%	1/10W
R742	1-216-049-11	RES, CHIP	1K	5%	1/10W
R745	1-216-049-11	RES, CHIP	1K	5%	1/10W
R746	1-216-049-11	RES, CHIP	1K	5%	1/10W
R747	1-216-049-11	RES, CHIP	1K	5%	1/10W
R748	1-216-113-00	METAL CHIP	470K	5%	1/10W
R749	1-216-049-11	RES, CHIP	1K	5%	1/10W
R750	1-216-073-00	METAL CHIP	10K	5%	1/10W
R752	1-216-097-00	RES, CHIP	100K	5%	1/10W
R753	1-216-097-00	RES, CHIP	100K	5%	1/10W
R754	1-216-049-11	RES, CHIP	1K	5%	1/10W
R755	1-216-097-00	RES, CHIP	100K	5%	1/10W
R756	1-216-049-11	RES, CHIP	1K	5%	1/10W
R757	1-216-049-11	RES, CHIP	1K	5%	1/10W
R758	1-216-049-11	RES, CHIP	1K	5%	1/10W
		< VARIABLE RESISTOR >			
RV121	1-223-829-11	RES, ADJ, CARBON 1.0K			
RV221	1-223-829-11	RES, ADJ, CARBON 1.0K			
RV401	1-238-601-11	RES, ADJ, CARBON 22.0K			
RV402	1-223-831-11	RES, ADJ, CARBON 4.7K			
		< TUNER UNIT >			
TU1	A-3282-031-A	FM/AM TUNER UNIT TUX-006/2 (EE)			
		< VIBRATOR >			
X11	1-577-126-51	VIBRATOR, CRYSTAL (7.2MHz)			
X701	1-579-233-11	VIBRATOR, CERAMIC (5MHz)			
**********					
*	A-3313-523-A	POWER BOARD, COMPLETE			
		**********			
*	3-012-568-01	BRACKET (CONNECTOR)			
	3-012-593-01	BRACKET			
*	3-022-201-01	HEAT SINK			
*	3-022-214-01	BRACKET (IC)			
	7-682-548-04	SCREW +P 3X8			
	7-685-792-09	SCREW +PTT 2.6X6 (S)			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			
		< CAPACITOR >			
C451	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C452	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C453	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C454	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C455	1-163-251-11	CERAMIC CHIP	100PF	5%	50V

Ref. No.	Part No.	Description			Remark
C456	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C465	1-126-301-11	ELECT	1uF	20%	50V
C466	1-124-589-11	ELECT	47uF	20%	16V
C471	1-113-501-11	ELECT	4700uF	20%	16V
C473	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C475	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C476	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C478	1-126-157-11	ELECT	10uF	20%	16V
C479	1-126-301-11	ELECT	1uF	20%	50V
C572	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C602	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C603	1-164-232-11	CERAMIC CHIP	0.01uF		50V
		< CONNECTOR >			
CN3	1-779-534-11	PIN, CONNECTOR (PC BOARD)			
CNP400	1-770-407-11	CONNECTOR, BOARD TO BOARD 12P			
CNP401	1-770-411-11	CONNECTOR, BOARD TO BOARD 20P			
		< DIODE >			
D176	8-719-200-82	DIODE 11ES2			
D177	8-719-200-82	DIODE 11ES2			
D186	8-719-200-82	DIODE 11ES2			
D187	8-719-200-82	DIODE 11ES2			
D276	8-719-200-82	DIODE 11ES2			
D277	8-719-200-82	DIODE 11ES2			
D286	8-719-200-82	DIODE 11ES2			
D287	8-719-200-82	DIODE 11ES2			
D471	8-719-049-38	DIODE 1N5404TU			
D472	8-719-109-93	DIODE RD6.2ESB2			
D473	8-719-923-92	DIODE MTZJ-T-77-16B			
D573	8-719-109-93	DIODE RD6.2ESB2			
D574	8-719-109-93	DIODE RD6.2ESB2			
D608	8-719-109-93	DIODE RD6.2ESB2			
D609	8-719-109-93	DIODE RD6.2ESB2			
		< IC >			
IC471	8-759-490-74	IC TDA7384			
		< COIL >			
L471	1-411-670-23	COIL, CHOKE 400uH			
		< RESISTOR >			
R471	1-216-073-00	METAL CHIP	10K	5%	1/10W
R472	1-216-222-00	RES, CHIP	10K	5%	1/8W
R475	1-216-073-00	METAL CHIP	10K	5%	1/10W
R478	1-216-073-00	METAL CHIP	10K	5%	1/10W
R479	1-216-049-11	RES, CHIP	1K	5%	1/10W
R573	1-216-025-00	RES, CHIP	100	5%	1/10W
R574	1-216-025-00	RES, CHIP	100	5%	1/10W
**********					
		MISCELLANEOUS			
		**********			
16	1-782-345-11	CORD (WITH CONNECTOR) (POWER)			
F901	1-532-677-00	FUSE, GLASS TUBE (10 A)			
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)			
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)			
**********					

Ref. No.	Part No.	Description	Remark
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-793-09	SCREW +PTT 2.6X8 (S)	
#3	7-685-105-19	TPG +P 2X8, TYPE 2, NON-SLIT	
#4	7-682-548-04	SCREW +P 3X8	
#5	7-685-794-09	SCREW +PTT 2.6X10 (S)	
#6	7-624-104-04	STOP RING 2.0, TYPE -E	
#7	7-627-553-17	PRECISION SCREW +P 2X2 TYPE 3	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-473-067-71	REMOTE COMMANDER (RM-X4S)	
	3-861-993-11	MANUAL, INSTRUCTION (HUNGARIAN, RUSSIAN)	
	3-861-994-11	MANUAL, INSTRUCTION, INSTALL (HUNGARIAN, RUSSIAN)	
	3-921-278-01	LABEL (DSPL) (for RM-X4S)	
**********			
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
501	3-012-593-01	BRACKET	
502	X-3366-405-1	SCREW ASSY (EXP), FITTING	
503	1-775-543-11	CORD, GROUND	
504	X-3373-432-1	BRACKET ASSY (for RM-X4S)	



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